

Financing Cleaner Production “Towards Inclusive and Sustainable Industrial Development”



Gujarat Cleaner Production Centre

ENVIS Centre on: Cleaner Production & Clean Technology
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The document is intended to provide guidance on the role of SMEs in development, including financial assistance schemes under Gujarat Industrial Policy, 2015 for promoting Cleaner Production, Common Environment Infrastructure in the industrial estates and Environmental Management practices in the state of Gujarat. Any use made of this publication, or reliance on, or any decision to make based on it, is the responsibility of such user. GCPC accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken based on this document.

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About us

Gujarat Cleaner Production Centre (GCPC) was established by Department of Industries and Mines, Government of Gujarat in the year 1998, with technical support of United Nations Industrial Development Organization (UNIDO). GCPC acts as an environmental advisor of GIDC, Government of Gujarat to solve environmental problems faced by SMEs in GIDC industrial estates. GCPC is actively engaged in promotion of Cleaner Production (CP) and Clean Technology (CT) through its various activities such as orientation/awareness programmes and conducting CP & CT assessment projects.

GCPC is regular member of RECP net – The Global Network on Resource Efficient and Cleaner Production of UNIDO and CTCN – Climate Technology Centre and Network, a working arm of UNFCCC - The United Nations Framework Convention on Climate Change.

GCPC is acting as an Environmental Information System (ENVIS) Centre for Ministry of Environment, Forest and Climate Change, Government of India since 2005, with objective to disseminate and promote the theme of ‘cleaner production and clean technology’ and other environmental practices across industries for making industry ‘Clean and Green’.

GCPC provides guidance to industries in implementing cleaner production, conducting cleaner production orientation programmes, training and dissemination programmes and conducting cleaner production assessment projects to achieve sustainable industrial development in the state.

GCPC has played an active role in framing Gujarat Industrial Policy 2004, 2009 and 2015 and many financial assistance schemes, pertaining to Cleaner Production and Clean Technology in the state of Gujarat.

GCPC has so far conducted more than 200 orientation programmes in various academic institutions and industries associations. The centre has successfully completed more than 100 Cleaner Production Demonstration Projects in various industrial sectors such as Textile, Dairy, Pulp & Paper, Chemical, Petrochemical, Pharmaceutical, Fish Processing, Ceramic etc.

Foreword



The concept of Cleaner Production plays a major role in Sustainable Industrial Development. The Cleaner Production approach is “preventive” rather than “curative”. The concept is all about changing mindsets from traditional production practices to environmental friendly practices.

Cleaner production reduces environmental risks and liabilities and improves corporate image.

Cleaner Production plays a role in achieving sustainable industrial development. The document is meant to aware industries and to provide them guidance, about the availability financial assistance schemes on implementation of Cleaner Production and other environmental management practices under the Gujarat Industrial Policy, 2015 for the state.

We firmly believe these schemes will motivate industries towards implementation of environmental friendly practices in their concerned organizations for sustainable industrial growth in the state of Gujarat.

Dr. Bharat Jain

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Gujarat Cleaner Production Centre

Table of Contents

Role of SMEs in development

Cleaner Production for Sustainable Industrial Growth

– The concept of Cleaner Production & Definition

Gujarat Industrial Policy: 2015

Scheme of Assistance for Common Environment Infrastructure

2.0 Scheme-1

- Financial Assistance for Common Environmental Infrastructure Facilities

3.0 Scheme -2

- Common Boiler project by SPV constituted by minimum 10 MSME's

4.0 Scheme-3

- Scheme for strengthening the Regulation and Environmental Compliance

5.0 Scheme-4

- Scheme for Development of Green Estate
- Scheme for Assistance for Common Environment Protection Measures

Scheme for Assistance for Environment Protection Measures

2.0 Scheme-1

- Scheme for assistance to Environment Management

3.0 Scheme-2

- Scheme for assistance to encouraging “Green practices and environmental audit to MSMEs”

Role of SMEs in development

Small and Medium Enterprises (SMEs) play a major role in most economies, particularly in developing countries, by increasing national income GDP in emerging economies through employment creation. It is a backbone of national development, as it plays a significant role through significant export earnings, low investment requirements, operational flexibility, location wise mobility, import substitution, thereby generating new entrepreneurs by providing them knowledge and training.

Despite their high enthusiasm and inherent capabilities to grow, SMEs in India are also facing a number of problems such as sub-optimal scale of operation, technological obsolescence, supply chain inefficiencies, increasing domestic and global competition, working capital shortages, insufficient skilled manpower, change in manufacturing strategies and turbulent and uncertain market scenario. To survive with such issues and compete with large and global enterprise, SMEs need to adopt innovative approaches in their operations. SMEs that are innovative, inventive, have a strong technological base, competitive spirit and a willingness to restructure themselves can withstand the present challenges and come out successfully to contribute higher to GDP.

Financial Assistance Schemes for environmental management practices and common environmental infrastructure play a leading role in sustainable development of SMEs in the state of Gujarat.

Cleaner Production for Sustainable Industrial Growth

Cleaner Production is an important strategy to create sustainable industrial growth as it improves business sustainability, save costs and participate in long-term sustainable growth. It is a concept that goes beyond simple “pollution control”. It involves active research and development into new structures, systems, processes, materials and products that are more resource and energy efficient, whilst engaging and empowering people. Such approaches have become necessary for businesses, institutions, governments, and civil society to ensure ecologically, socially and economically sustainable, consumption production and service strategies. These involve educational, training, management, and technical assistance programs, which are needed to accelerate the adoption of cleaner production and sustainability by industries, governments and universities.

The concept of Cleaner Production was developed in the year 1992 during the preparation of the Rio Summit as a programme of United Nations Environment Programme (UNEP) and United Nations Industrial Development Organization (UNIDO) to reduce environmental impact of Industry.

United Nations Environment Programme (UNEP) defines “**Cleaner Production** as the **continuous**, application of an integrated **preventive** environmental strategy applied to **processes**, **products** and **services** in order to increase **efficiency** and **reduce risks** to **humans** and the **environment**”.

For production processes cleaner production includes conserving raw materials and energy, eliminating toxic raw materials, and reducing the quantity and toxicity of all emissions and wastes;

For products cleaner production includes the reduction of negative impacts along the life cycle of a product, from raw materials extraction to its ultimate disposal; and

For services cleaner production is to incorporate environmental concerns into designing and delivering services.

The key difference between “**pollution control**” and “**cleaner production**” is of timing. **Pollution Control** is after-the-event. “react and treat” approach; whilst **Cleaner Production** is proactive, “**anticipate and prevent**” philosophy.

Cleaner Production is not simply a question of changing equipments; it is a matter of “**changing attitudes**”. The objective behind the Cleaner Production implementation is to create sustainable industrial development.

Gujarat Industrial Policy

The Industrial Policy, 2015 aims at promoting 'Gujarat' as a globally competitive and innovative industrial destination that stimulates sustainable development and inclusive growth. The primary mission of Industrial Policy includes proactive support for development of industries, value addition on local primary sources and clean environment in the state with increasing the share of Manufacturing in State GDP.

The first and foremost criterion to sustain project should be self-sustaining.

Policies to promote sustainable Industrial Development

Gujarat Industrial Policy-2015 intends to provide assistance to encourage compliance with the environmental norms, standards by providing assistance on adopting “**Cleaner Production**”.

The financial assistance for Cleaner Production aims at encouraging industries towards “cleaner production” implementation for sustainable industrial development in the state of Gujarat.

Benefits of implementing Cleaner Production in the organization are:

- raw materials and natural resource conservation (water and energy);
- reduces the usage of hazardous / toxic materials in industrial processes;
- reduces or prevents waste and pollution generation at source through reuse and recycling;
- eliminates the potential health hazards and risks to humans and the ecosystems;
- it includes redesign of existing products and services including modifications and up gradation of existing equipment and processes;
- increases production efficiency and product quality;
- improves corporate image

Government of Gujarat has provided financial assistance to industries on implementation of Cleaner Production under Gujarat Industrial Policy 2009 and 2015 respectively. Government of Gujarat has assigned Gujarat Cleaner Production Centre (GCPC) for technical feasibility recommendation and to provide support in technical inspection on cleaner production and related projects to Industries Commissionerate, Government of Gujarat.

Gujarat Cleaner Production Centre was one of the members of Task Force Committee to review Industrial Policy, 2015 respectively for the State of Gujarat, under which GCPC suggested innovative concepts and schemes for environmental pollution prevention; such as Development of Green Industrial Estate, Eco-Industrial Parks, Retrofitting of Existing Industrial Estate into Eco-Industrial Parks, Common Boiler, including Research and Innovation in the field of Environment etc. and the same has been included in Gujarat Industrial Policy, 2015.

Scheme of Assistance for Common Environment Infrastructure

2.0 Scheme-1:

Financial Assistance for Common Environmental Infrastructure Facilities

The scheme will be known as “Financial Assistance for Common Environmental Infrastructure Facilities”

2.1 Eligible Project/facilities for Common Environmental Infrastructure

1. New Common Effluent Treatment Plant including Collection, Storage and Treatment of Effluent
2. Augmentation and / or Technology up gradation of existing CETPs
3. Conveyance Pipeline for safe disposal of treated effluent
4. Recycling of treated waste water for industrial use and other use.
5. Common Spray Drying system for effluent.
6. Common Multiple effect evaporator, Mechanical Vapour Recompression Evaporation (MVRE) etc.
7. To install monitoring system for water, air, land, noise etc. for ambient environment
8. To install online continuous Stack emission Monitoring System with connectivity to GPCB server
9. Common waste management projects:
 - a. Common Waste Management Infrastructure Projects
 - b. Incinerators for Hazardous Waste and Concentrated Effluent
 - c. Waste Collection / Pre-preparation / processing / treatment facilities for Co-processing / power and steel industries
 - d. Recovery, Reuse and recycling of waste of CETP and TSDF by Industries Association
 - e. Plasma thermal destruction / treatment / waste to energy facility
 - f. Common solvent recovery Plant
 - g. Common spent acid recovery Plant
 - h. Use of gypsum through an established Environment Friendly technology
 - i. Use of iron Sludge through an established Environment Friendly Technology
 - j. Pet bottle recycling using indigenous raw material

- k. Recovery of Waste from E-waste / Electroplating Waste / Photography Waste
 - l. Recycling Facilities for Hazardous waste generated during ship breaking activities
 - m. Waste recycling plants to useful product / by product i.e. vermin compost, handmade paper from paper mill waste.
10. Any other environment Management project as approved by SLC.

2.2 Quantum of Assistance

- a. Assistance up to 25% of eligible fixed capital investment in the Project for the activities listed in Para 2.1 maximum upto Rs. 50Cr.
- b. Committee may sanction upto 100% assistance to the projects of Govt. Departments, Govt. Agency or Authority, State and Central Govt. PSUs, Board.
- c. In case there is no stakeholder for the development of the environment of the industrial area / estate, Industries commissioner may appoint agency to undertake study on requirement of environment infrastructure and submit to Implementation committee for sanction of project and to appoint agency to execute the work.

3.0 Scheme -2

Common Boiler project by SPV constituted by minimum 10 MSME's

3.1 Eligibility criteria

- 1. Project should be promoted by SPV of minimum 10 MSME using steam in the process and having independent Boiler in their premise.
- 2. New Boiler should be Energy efficient
All statutory permissions from concerned authority for operation of Boiler and distribution pipe line shall have to be obtained by SPV

2.2. Quantum of Assistance

- 1. 35% or maximum Rs 2 Cr, if solid fuel used and 50% of cost maximum Rs. 2.00 Cr., if cleaner fuel is used for Common Boiler project.

4.0 Scheme-3

Scheme for strengthening the Regulation and Environmental Compliance

The scheme will be known as a scheme of assistance for strengthening the Regulation and Environmental Compliance.

4.1 Eligible Activities

- (i) Scientific report / Pilot projects on cleaner production and technology through institution such as IITs, NITs, Science & Engineering Colleges of the State, Scientific and R&D institutions and GPCB/GEMI/GCPC.
- (ii) Installation of testing infrastructure and network for monitoring ambient environmental quality and progressively ensure real-time and online availability of the monitoring data to GPCB/GEMI/GCPC/recognized science and engineering colleges of the State.
- (iii) Source inventory and remediation programs for polluted rivers of the state and Regional environment impact assessment for vulnerable estate / district and Air quality monitoring, emission inventory and sources apportionment study for vulnerable areas to GPCB/GEMI/GCPC/recognize Science and Engineering Colleges of the State through institutions such as IITs, NITs, Scientific and R & D institutions.
- (iv) Workshop/seminar programs for capacity building, environmental compliance and enforcement, industrial pollution prevention / control / remediation etc by GPCB/GEMI/GCPC.
- (v) Environment clinics / an effort to bring the industrial associations and professionals on a common platform to provide expert advice and cost effective solution on real time environmental issues to be executed by GPCB with the help of scientific and R&D institutes/GEMI/GCPC/recognize Science & Engineering Colleges of the State.
- (vi) Assistance for establishment of training centre or training program cost i.e. skill development programs for instructors, operators and managers of Industries by Environment and Forest Department or by GPCB/GEMI/GCPC in association with Industries Association.
- (vii) Any other activities as approved by SLC.

4.2 Quantum of Assistance

Need based support will be provided as may be decided by the State Level Committee.

5.0 Scheme-4

Scheme for Development of Green Estate

5.1 Eligibility Criteria

1. Industries commissioner will appoint the professional agency on the recommendation of GPCB to re-locate certain units or group of certain units.
2. The professional agency will study the details such as existing pollution load, quality of effluent, improvement of environment due to relocation and proposed remedial action etc.
3. The study report will be submitted to the Industries Commissioner
4. The committee will approve the project based on study report.
5. The assistance will be sanctioned to the SPV of the polluting units, for setting of Green Estate

5.2 Quantum of assistance

Activity	Assistance
1. Assistance for preparation of site master plan for relocation / retrofitting of existing polluting industrial units into Green Industrial estate as per the direction of GPCB/MoEF by recognize Science & Engineering Colleges of the State, IITs, NITs, Scientific and R & D institutions, GEMI, GCPC etc.	75% assistance maximum Rs. 80.00 Lakh
2. Assistance for setup / relocation / retrofitting of existing polluting industrial units into Green Industrial estate	25% of capital cost or maximum Rs. 25.00 Cr.

2.0 Scheme-1

Scheme for assistance to Environment Management

2.1 Eligible Activities

1. Implementation of cleaner production technology in place of existing process such as substitution & optimization of raw material, reduction in water consumption or energy consumption or waste generation.
2. Any other environment management project with use of Clean, Efficient and Innovative Pollution Control Equipment.

3.3. Quantum of Assistance

The following quantum of assistance shall be provided:

Sr. No.	Eligible Activity	Quantum of Assistance per project
1.	Implementation of cleaner production technology in place of existing process such as substitution & optimization of raw material, reduction in water consumption or energy consumption or waste generation	<ol style="list-style-type: none"> 1. Upto 35% of cost of plant & machinery with ceiling of Rs. 35 lacs during the operative period of the scheme for MSME. 2. Upto 10% of cost of plant & machinery with ceiling of Rs. 35 lacs during the operative period of the scheme for large projects.
2.	Any other environment management project with use of Clean, Efficient and Innovative Pollution Control Equipment	<ol style="list-style-type: none"> 1. Upto 25% of cost of plant & machinery with ceiling of Rs.35 lacs during the operative period of the scheme for MSME. 2. Upto 10% of cost of plant & machinery with ceiling of Rs. 35 lacs during the operative period of the scheme for large projects.

3.4 Sanction Authority

Assistance under the scheme will be sanctioned by State Level Implementation Committee, on the basis of opinion by Gujarat Cleaner Production Centre (GCPC).

3.0 Scheme-2

Scheme for assistance to encouraging “Green practices and environmental audit to MSMEs”

3.1.1. Eligible Enterprise

Eligible Enterprise means existing Enterprise of MSME who intends to adopt green practices in its enterprise.

3.1.2 Eligible Activities

1. Periodic Environmental audits except those required to be carried out under the provisions of Act & Rules or direction of Court of Law
2. Installation of online continuous Stack Emission Monitoring system (CEMS), online effluent quality monitoring system with connectivity to GPCB/CETP project for onetime.
3. Industrial building of more than 2,000 sq. m. built up area which obtain green rating under Indian green building council (IGBC / LEED) or GRIHA for onetime.
4. Setting up of Environment Management System including setting up of Environment Management Laboratory
5. Purchase of new equipments/systems related to safety, occupational health or for environment compliances for common use of industries located in cluster of minimum 10 units.
6. Industries practicing at least 50% waste water recovery through Zero Liquid Discharge as certified by GPCB

3.1.3 Quantum of Assistance

The following quantum of assistance shall be provided:

Sr. No.	Eligible Activity	Quantum of Assistance per project
1.	Periodic Environmental audits except those required to be carried out under the provisions of Act & Rules or as per the direction of Court of law	Up to 75% of fees of audit services with a ceiling of Rs.50,000/Audit whichever is less.
2.	Installation of online continuous Stack Emission Monitoring system (CEMS), online effluent quality monitoring system with connectivity to GPCB/CETP project	Upto 25% of cost of system or Rs. 5 lacs, whichever is less.
3.	Industrial building of more than 2,000 Sq m built up area which obtain green rating under Indian green building council (IGBC/LEED) or GRIHA	Upto 50% of consulting charges or Rs.25 lacs whichever is less.
4.	Setting up of Environment Management System including setting up of Environment Management Laboratory	Upto 50% of cost of Equipment, ceiling of Rs. 10 Lacs/unit once during the operative period.
5.	Purchas of new equipment/system related to health or for environment compliances for common use of industries located in cluster of minimum 10 units.	Upto 35% of cost of Equipment; ceiling of Rs.35 lacs per cluster.
6.	Industries practicing at least 50% waste water recovery through Zero Liquid Discharge as certified by GPCB	Upto 35% onetime capital subsidy on relevant equipment/system or Rs. 35 lacs, whichever is less.

The quantum of assistance under activity Sr. no. 1,2&3 will be sanctioned by District Industries Centre and activity at Sr. 4,5&6 will be sanctioned by State Level Implementation Committee.

**“We believe together we can make sustainable development
in the State of Gujarat”**



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