



GUJARAT CLEANER PRODUCTION CENTRE – ENVIS



Government of India
Ministry of Environment, Forest & climate Change
(EI Division)

The Annual Progress Report 2014-15 on Activities of GCPC - ENVIS Centre

1.	Name of Host Organization:	Gujarat Cleaner Production Centre
2.	Assigned Subject Area:	Cleaner Production & Clean Technology
3.	Date/Month/Year of establishment of ENVIS Centre:	18/01/2003 as ENVIS node Feb-2005 As ENVIS Centre
4.	Name and designation of ENVIS Coordinator:	Dr. Bharat Jain, ENVIS Coordinator and Member Secretary GCPC
5.	Has the Host Organization constituted an Advisory Committee for guiding the activities of the Centre?	Yes
	Composition of the Advisory Committee :	<ul style="list-style-type: none"> • Dr. Bharat Jain, Member Secretary, GCPC • Mr. Hiren Bhendwal (Senior Project Engineer) • Mr. Sumit Patel (Asst. Project Engineer) • Mr. Heer Desai, Project Assistant • Mr. Himanshu Trivedi, Accounts Officer • Ms. Palak Shukla (Asst. Project Engineer)
6.	Promoting the application of CP and other environmental management practices across various industries and help them in its implementation through CP Orientation Programmes, Training programmes, CP Assessments and Dissemination Program me.	To collect, collate, store in retrieval system and disseminate data and information on “Cleaner Production & Clean Technology” through deployment of modern environmental information technology.

7. Databases:

7.1. Catalogue of Non-numeric Databases compiled by the ENVIS Centre till date:

Name of Database	Description (in brief)	Data type (descriptive/ graphical/ geospatial/ etc.)	Status of Updation/ Periodicity/ Data Points Compiled (including date/month/year of last data point)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
CP/CT measures for Major Polluting Sector	Cleaner Production Processes for 17 major polluting industries	Descriptive and Graphical	06/01/14	Primary data	Yes
Green Growth Cleaner Production	Potential Green Growth in India and Gujarat and the state's	Descriptive	13/01/14	Primary data	Yes



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	initiative in environment conservation				
Cleaner Production & Sustainability	Sustainable development and CP tools to achieve sustainability	Descriptive	21/01/14	Primary data	Yes
Cleaner Production Policy	Industrial Policy and Policies to promote CP- Indian and International scenario	Descriptive	Updation depending on the availability of data	Secondary data	Yes
Cleaner Production Case studies	Case studies of different sectors such as Chemical, Dyes & Dye Intermediates, Pulp & Paper, Dairy, Textile, Electroplating , Fishery, Stone and service sectors	Descriptive and graphical	link that directly opens to the host website : as suggested by Ms. Vandana Agrawal (former economic advisor)	Primary data	Yes
Cleaner Production for better environment	CP Concepts, CP tools, CP Methodology, CP Vs EoP, What is not CP, Waste minimization, CP applied in Practice, Why CP, CP hierarchy, Benefits of CP	Descriptive	CP Concepts in detail	Primary data	Yes
Books	<p>Books on subjects such as:</p> <ul style="list-style-type: none"> • Cleaner Production Guidelines In Dyes & Dye Intermediate • Integration Of Research to Industrial Application • Textile Bibliography • Waste Paper Based Recycle Paper Bibliography • Cleaner Production And Its Application to Industries • CP In Foundry Sector • CP In 	Descriptive and Graphical	As and when documented	Primary data	Yes



	<p>Electroplating Sector</p> <ul style="list-style-type: none"> • CP In Textile Sector • CP In Waste Paper Sector • CP & CT In Textile Sector • CP & CT In Waste Paper Sector 				
Posters/Leaflets	Posters on different environment and CP/CT areas	Descriptive and graphical	Uploaded as and when completed	Primary data	Yes
Research Paper (25)	List of research paper links on different topics/subjects of different countries	Descriptive and Graphical	Updation depending on the availability of data	Secondary data	Yes
Environmental News	Listed in a calendar format year wise	Descriptive	Monthly	Secondary data	Yes
Events	National and international events	Descriptive	Updation depending on the availability of data	Secondary data	Yes
CP potential in industrial sectors	CP potentials in Dyes & Dye intermediate, Electroplating, Pulp & Paper Sector, Tannery and Hosiery Processing Units	Numeric	On availability	Secondary data	Yes

7.2. Catalogue of Numeric and Time-series Databases compiled by the Centre till date:

Name of Database	Description (in brief)	Time Period (Starting year-Ending year) and Periodicity (annual/ monthly/ other)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)

7.3. New Databases developed during the previous Financial Year (2014-15):

7.3.1. Non-numeric Databases:

Name of Database	Description (in brief)	Data type (descriptive/ graphical/ geospatial/ etc.)	Status of Updation/ Periodicity/ Data Points Compiled (including date/month/year of last data point)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
E-bulletin	On different environment topics	Descriptive	Bi monthly	Primary data	Yes
Thesis / Reports	On different topics such as Cleaner Production,	Descriptive Information	On availability	Secondary data	Yes



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	Sustainable Development, Waste minimization and Waste management				
Case Studies	Case studies of Asia Pacific region of different industrial sectors such as Foundry, Food & Beverage, Cement, Ceramic , Pulp & Paper, Rubber & Textile, Chemicals & Dyes n Dye Intermediates and Miscellaneous	Descriptive information of different industrial sectors of Asia pacific region with graphs and tabels	Updation depending on the availability of data	Secondary data	Yes
Videos/Ppt (11)	Videos and Presentations on CP and related topics	Descriptive	Updation depending on the availability of data	Secondary data	Yes
BAT (Best Available Techniques) documents	Detailed information of BAT documents of different industrial sector by European Commission and Stockholm convention on POPs	Descriptive information	Updation depending on the availability of data	Secondary data	Yes
CP Institute/Network	List of CP Institutes in India	List in Tabular form	Updation depending on the availability of data	Secondary data	Yes
Book	Cleaner Production in Dairy Sector	Descriptive/ Graphical/numeric	Uploaded as soon as documented		
Posters/Leaflets (30)	Posters on different environment and CP/CT areas	Descriptive and graphical	Uploaded as and when completed	Primary data	Yes
Books related to CP (44)	Details of books on Cleaner Production , Clean Technology , Sustainable Development, Green Chemistry, Nanotechnology etc	Descriptive	On availability	Secondary data	Yes
Manuals /Guidelines	On different CP related issues	Descriptive and graphical	On availability	Secondary data	Yes
Research Paper (30)	List of research paper links on different topics/subjects of different countries	Descriptive and Graphical	Updation depending on the availability of data	Secondary data	Yes
Environmental News	Listed in a calendar format year wise	Descriptive	Monthly	Secondary data	Yes
Events	Bifurcated as national and international event	Descriptive	Updation depending on the availability of data	Secondary data	Yes
Benchmarks in Various sectors	Benchmarks in energy and water consumption of different industrial	Numeric and Spatial	Updation depending on the availability of data	Secondary data	Yes



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	sectors of different countries				
CP rewards in industries	Total annual savings in different industrial sectors by implementing CP Tools	Numeric and graphical	As and when documented	Primary data	Yes
Responsible Production in Industries	A leaflet on responsible production in Industries in the vernacular language (Gujarati)	Descriptive and pictorial	Uploaded	Primary Data	Yes
CP applications in industries	List of CP tools and its cost benefits	Information in tabular form	As and when documented	Primary data	Yes
Kid's/Students Corner	Environment Calendar	Information in tabular form	23.1.2015	Secondary data	Yes
	Grasp & Follow	Descriptive and Picturesque	Monthly	Primary data	Yes
	Animated videos	Video	On availability	Secondary	Yes
	Drawings (done by school children)	images	On availability	Primary data	Yes
	Presentation	Descriptive and Picturesque	23.1.2015	Primary data	Yes
Water Footprint	<ul style="list-style-type: none"> - Corporate water footprint - Global water footprint - Water footprint calculations - National Water footprint - Your Water footprint 	Descriptive	19.3.2015	Primary data	Yes
Carbon Footprint	<ul style="list-style-type: none"> - Carbon emissions - Beginning of carbon footprint - Global CO2 Budget - Ways to reduce Carbon Footprint - Calculate Carbon Footprint 	Descriptive	19.3.2015	Primary data	Yes
Cleaner Production ; Health, Hygiene & Environment	An article on how CP helps in improving health, hygiene and environment	Descriptive	19.3.2015	Primary data	Yes
CP definitions by other organizations and Institutions	Definitions by OECD, SETC China, Environment Australia, The Global Development Research Centre	Descriptive	19.3.2015	Secondary data	Yes



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7.3.2. Numeric and Time-series Databases:

Name of Database	Description (in brief)	Time Period (Starting year- Ending year) and Periodicity (annual/ monthly/ other)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
Data on CP activities	Data on CP promotional activities taken up in colleges and industries and number of industries shown interest in CP assessment	2014-2015	Primary data	Yes

7.4. Status of data entry in ISBEID: (For State/ UT ENVIS Centres) – As in **Annex**

8. Information/ Knowledge Products:

8.1. ENVIS Newsletters published during the previous Financial Year (2014-15):

Quarter/ Volume/ Issue/ Theme	Main Articles	Number of copies printed and circulated
Vol.12, No. 2 April – June, 2014	<ul style="list-style-type: none"> • Cover story: Case study on Zero Liquid Discharge at Vaibhav Paper Mill Pvt.Ltd. • Interview of MS, GCPC • Eco Products • Simple tips for Environment preservation • Environment news • Events • Cleaner Production Policy: Industries Commissionerate • CP Promotion activities in colleges o Gujarat • Snapshots • Environmental quotes 	500/350
Vol.12 No.3 July – Sept, 2014	<ul style="list-style-type: none"> • Snapshots of CP Centers around the globe • CP in Electroplating Processes • BAT in Electroplating Processes • Environmental Facts • Eco Product • Ways to encourage Environmental Awareness in Youths • Environmental News • Events • Snapshots 	500/350
Vol. 12 No. 4 Oct – Dec, 2014	<ul style="list-style-type: none"> • Open windows of CP in African regions • History – Knowledge Corner • Cover Story : Swachh Bharat Mission • Innovative Initiatives: Ashudhinashak; Bio toilet • Small Steps towards Cleaner Locality • Environmental News • Events • Science in Ramacharitmanas • Snapshots 	500/350
Vol.13 No.1 Jan – March, 2015	<ul style="list-style-type: none"> • Open Windows of CP Centres in Arab region • Cover Story : Plasma Gasification • Environmental News • Events • Eco Product 	Printing under process



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Quarter/ Volume/ Issue/ Theme	Main Articles	Number of copies printed and circulated
	<ul style="list-style-type: none"> • Snapshots 	

8.2. Other publications/ information products brought out during the previous Financial Year (2014-15):

Publication/ Product	Theme(s)/ Subject Area(s)	Number of copies printed and circulated
9 Posters	<ul style="list-style-type: none"> • Cleaner Production in Vinyl Sulphone industry • Cleaner Production in Electroplating industries • Concept of Responsible Production • Life Cycle Thinking • Cleaner Production in Dairy Industry • Clean & Energy efficient Product in Dyes and Dye intermediates • Cleaner Production in Textile Sector • Tips for energy conservation in industries • Gypsum Recovery & Spent Acid management 	2/1 (Posters already submitted during the evaluation workshop of western region held at Nagpur on 16-17 / 02/ 2015)
Leaflets	Environmental Friendly Techniques in Recycle Paper Sector of Gujarat	500/380
Leaflets	Cleaner Production in Stone Crushing Unit	500/380
Book	Cleaner Production in Dairy Sector	200/194
Booklet	Plasma Gasification	Under process
Booklet	Responsible Production in Industries (In Gujarati)	250/110
Pamphlet	Webpage of GCPC ENVIS Website	500/365
CDs	<ul style="list-style-type: none"> • Dairy Sector • Textile Sector 	150/136
Book	<ul style="list-style-type: none"> • Abstracts on “Integration to Industrial Application” 	100/67

8.3. Information Products published/ released so far:

Publication/ Product	Theme(s)/ Subject Area(s)	Year of publication
Book	Cleaner Production and its applications to Industries	-
Book	Cleaner Production Guidelines in Dyes & Dye Intermediates	March -- 2014
Book	Integration of Research in Industrial Applications	March – 2014
Booklets	Textile Bibliography	March – 2014
Booklets	Waste Paper Based Recycle Paper Bibliography	March – 2014
Leaflets	CP in Foundry Sector	March – 2014
Leaflets	CP in Electroplating Sector	March – 2014
Leaflets	CP in Textile Sector	March – 2014
Leaflets	CP in Waste Paper Sector	March – 2014
Leaflets	CP/CT in Textile Sector	March – 2014
Leaflets	CP/CT in Waste Paper Sector	March – 2014
Book	Cleaner Production in Dairy Sector	September 2014
Booklet	4R profitable road for sustainable development	November - 2011
Brochure	Publications of GCPC-ENVIS	March – 2014
Posters (20)	On Dairy sector and textile sector	August – 2012
Posters (2)	On Cleaner Production and Clean Technology	November - 2012
Publications under GCPC		
Leaflets	Cleaner Production Implementation Project in Dairy Sector (in English)	June - 2013
Leaflets	Cleaner Production Implementation in Textile Sector (in English)	June - 2013
Leaflets	Cleaner Production Implementation Project in Dairy Sector (in Gujarati)	August - 2013



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Publication/ Product	Theme(s)/ Subject Area(s)	Year of publication
Leaflets	Cleaner Production Implementation in Textile Sector (in Gujarati)	August - 2013
Book	Zero Liquid Discharge in Textile Sector	March – 2014
Brochure	GCPC Achievements	March – 2015
Brochure	Cleaner Production in Dairy	March – 2015

9. ENVIS Website (*ENVIS Centres whose Website has been restructured may provide the Performance Report/Graphs generated therein wherever possible*):

10.1.	URL:	www.gcpcenvis.nic.in
10.2.	Status of restructuring of Website:	Restructured on (DD/MM/YYYY) Not restructured
10.3.	Frequency of updating Website:	Weekly
10.4.	Subject-specific database updation (numeric/ others):	Updation of the data depends upon its availability and documentation
10.5.	Publication uploaded/ updated on Website:	Depends upon the documentation

11. User Engagement and Interaction (*ENVIS Centres whose Website has been restructured may provide the Performance Report/Graphs generated therein wherever possible*):

11.1.	Total number of visits on Website:	Total number of visits since April 2014 is 6584
11.2.	Number of unique visits on Website:	
11.3.	Number of reports downloaded/ read by stakeholders:	

11.4. Query-Answer Statistics:

Mode of Query Receipt	Number of Queries Received	Number of Queries Responded	Reasons for shortfalls, if any, and action taken to rectify
Online	2	2	-
Email	180	180	-
Postal	2	2	-
Physical	191	191	-

12. Implementation of Annual Plan of Activities of the previous Financial Year (2014-15):

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
Cleaner Production definitions by other organization/institutions and in Gujarati language	Suggested by the experts during the Evaluation workshop of Western region on Feb 16-17, 2015 at Nagpur. The same has been uploaded in duration of one month.	
Water Footprint and Carbon Footprint	Suggested by the experts during the Evaluation workshop of Western region	



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	on Feb 16-17, 2015 at Nagpur. The same has been uploaded in duration of one month.	
Cleaner Production in our Home (A poster in Gujarati)	Suggested by the experts during the Evaluation workshop of Western region on Feb 16-17, 2015 at Nagpur. The same has been uploaded in duration of one month.	
Cleaner Production : Health, Hygiene & Environment	Suggested by the experts during the Evaluation workshop of Western region on Feb 16-17, 2015 at Nagpur. The same has been uploaded in duration of one month.	
Celebration of Days - World Environment Day - Earth Day - Ozone Day	All the days were celebrated by making a presentation on the theme and sharing the information of the same and the significance of the day to all the ENVIS team members and to other members of the host organization.	
Swachh Bharat Abhiyaan	By cleaning up the work stations and the office premises, the ENVIS team mates celebrated the Swachh Bharat Abhiyaan and have submitted the report.	
Green belt in industrial vicinity	An article on the Green belt in industrial vicinity has been generated and uploaded on the website	
Promotional Activities in colleges	In the previous financial year CP promotional activity was carried out in a total of 13 colleges	
Promotional Activities in industries associations	In the previous financial year CP promotional activity was carried out in a total of 6 colleges	
Expert Lectures	Twice a month expert lectures are conducted to educate and train the GCPC - ENVIS members with new information and techniques.	
To pursue or imbibe and to share new CP processes outside of Gujarat	NIL	No response from the states of Rajasthan, Madhya Pradesh, Maharashtra etc. To carry out this activity GCPC-ENVIS seeks support from MoEF to spread our entity in other states by passing a memorandum to the IDC or SPCB to incorporate the GCPC-ENVIS model of Cleaner Production processes and Cleaner Techniques. So that GCPC-ENVIS could achieve its mission in reaching out to many of the industrial universe.
Case studies of Cleaner Production & Clean Technology in different industrial sectors of Asia Pacific region	Till date case studies of 9 countries in 10 different industrial sectors have been uploaded. A total of 121 case studies have been uploaded.	
Posters on Environment Related issues and Cleaner Production in different sectors	A total of 9 posters have been published and the same have been submitted to the ENVIS secretariat during the Evaluation workshop.	



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Guidelines or Manuals on CP/CT for different industrial sectors	Cleaner Production guidelines in Dairy Sector	
Videos and Presentations on the subject matter	7 Videos and 4 Presentations have been uploaded	
BAT documents segment of CP	18 BAT documents of Stockholm convention on POPs have been uploaded	
Benchmarks of water &Energy Consumption in different industrial sectors	Data of 12 countries and 4 sectors have been uploaded.	
Manuals/Guidelines	6 manuals on different subject area have been uploaded.	

13.	New initiatives taken during the previous Financial Year (2014-15):	<ul style="list-style-type: none"> - Once in every two months a bimonthly E – bulletin on different environment related topics is published online and uploaded on the website - Formation of Technical Advisory Committee and to conduct meeting twice in a year - Addition of CP Industrial Policy 2015 - Prepared a separate module on CP Achieves to upload all the secondary data available - Prepared a separate module on Kid’s Corner
14.	Date of most recent physical verification by the Ministry:	Ms. Vandana Aggrawal, Economic Advisor, M/o Environment & Forests, New Delhi visited Gujarat Cleaner Production Centre (GCPC– ENVIS) on 5th-7th December,2013 for the appraisal of the ENVIS centre.

15. Issues/ hurdles faced in undertaking ENVIS activities:

15.1.	GCPC ENVIS is the only centre working on the thematic area of Cleaner Production and Clean Technology. The theme applies a work to be done on a specific industry of a particular sector. Therefore, it is not possible to come up with a time series/ numeric data And updation of a data periodically is also not possible as it is dependent on the availability of data.
15.2.	Industries of different sectors come up for CP assessment, wherein CP tools are given after walk through of the industry. After the implementation of these CP options, the annual savings are calculated. Therefore, this is a time consuming exercise. And so the generation of data and its documentation takes time. And so the publication of the case study is also time dependent.



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