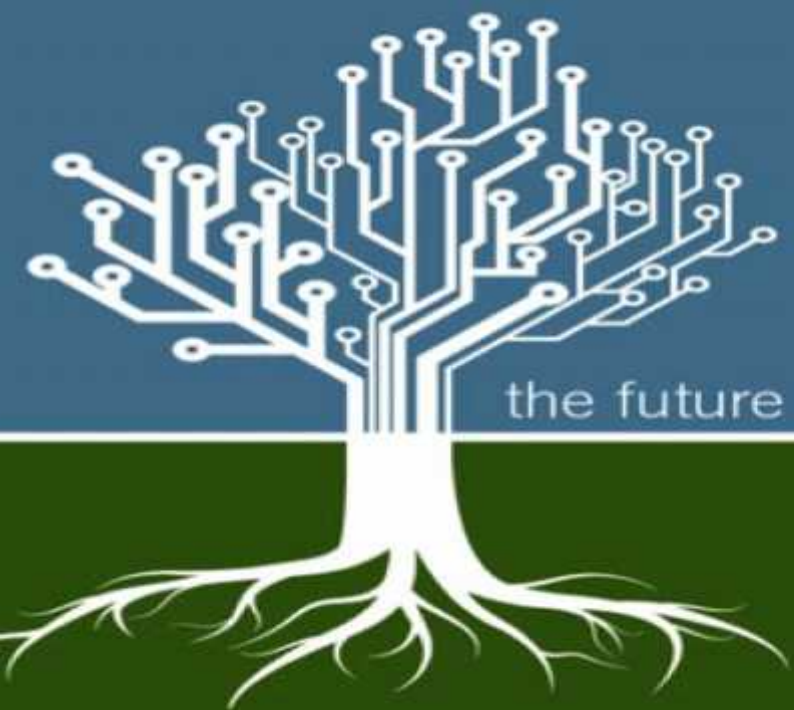


ANNUAL REPORT: 2015-16
GUJARAT CLEANER PRODUCTION CENTRE
ENVIS CENTRE

CLEANER PRODUCTION



the future of

green business strategy



SUPPORTED BY
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE
GOVERNMENT OF INDIA

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Website: www.gcpcenvis.nic.in

Government of India
Ministry of Environment & Forests
(EI Division)

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Annual Plan of Activities of ENVIS Centre – 2015-16

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 February:2005 as ENVIS Centre								
4. Name and designation of ENVIS Coordinator (2015-16):	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								
<p>Composition of the Advisory Committee:</p> <p>(Select YES or NO: if YES kindly fill the right column space; if NO kindly leave it blank)</p> <p>✓ YES</p>	<ul style="list-style-type: none"> ▪ Dr. Bharat Jain, Member Secretary, GCPC and ENVIS Coordinator ▪ Mr. Hiren Bhendwal (Senior Project Engineer) ▪ Mr. Sumit Patel (Assistant Project Engineer) ▪ Mr. Kiran Verma (Assistant Project Engineer) ▪ Mr. Abhi Patel (Assistant Project Engineer) ▪ Mr. Paras Gojiya (Assistant Project Engineer) ▪ Ms. Disha Bhavsar (Assistant Project Engineer) 								
6. Current ENVIS Staff Structure:									
	Name	Position held	Qualification and Experience	Joining Date in ENVIS Centre	Joining Date in current position	2015-16			
						Leaving Date (if applicable)	Emoluments drawn (Rs.)		
							Monthly	Annual	
	Dr. Bharat Jain	ENVIS Coordinator and Member Secretary	Ph.D. Environmental Engineering / M.E. Environment Engineering / B.E. Civil Engineering / P.G. Diploma in Business Management	1.1.2005	13.12.2014		-	-	

Factsheet of 2015-16 on Activities of ENVIS Centre

	Mr. Punamchandra Rathod	Programme Officer	B.E. Chemical Engineering		01.03.15		31,500 In which (25,000 under ENVIS)	2,25,000
	Ms. Priyanka Joshi	Information Officer	MSc. Environmental Science		13.07.15		15,000 At present	79,612
	Ms. Divya Prajapati	IT Assistant / Data Entry Operator	B.E. Computer Science and Engineering		10.08.15		13,000 At present	57,935
	Ms. Divya Namboothiri	Information Officer	MSc. Environmental Science		23.01.2014	21.07.2015	16,940 Last paid	60,637
	Ms. Broma Patel	IT Assistant / Data Entry Operator	MCA		01.09.2014	14.08.2015	12,000	53,419
	Mr. Zankesh Jain	IT Admin (External Expert)	BCA		1.09.2014		3000	30,000
	Mr. Heer Desai	Project Assistant, GCPC	PGD in Environment and Sustainable development, Bachelor in Geography		October 2013		14,100 working for ENVIS and Paid by host institution (GCPC)	
7.	Mandate of the Host Organization		Mandate of the ENVIS Centre					
	Promoting the application of Cleaner Production and other environmental management practices across various industries and help them in the implementation, through CP Orientation Programmes, Training Programmes, Dissemination Programmes and CP assessment projects to achieve sustainable development.		To collect, collate, store data in retrieval system and disseminate data information on “Cleaner Production & Clean Technology” through development of modern environmental information technology.					

8. Databases:**8.1. Catalogue of Non-numeric Databases compiled by the ENVIS Centre till date:**

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/y ear of last data point</i>)	Source(s) of data	Online Availabil ity (<i>Whether uploaded on ENVIS Website</i>)
Poster on various types of E Waste	Types of E-Waste and its growth	Descriptive and Graphical	2.9.2013	Secondary Data	No
Cleaner Production Guidelines	Guidelines Published by GCPC on following 4 Sector 1.Pulp & Paper 2.Electroplating 3.Hotels 4.Hospitals	Descriptive and Graphical	5.9.2013	Secondary Data	No
Poster on Energy Conservation	It has brief description of energy saving in furnace, boiler, DG sets, Motors, Pumps, Compressors, HVAC	Descriptive and Graphical	12.9.2013	Secondary Data	No
Poster (Water Conservation)	It consists of water conservation techniques, present practices	Descriptive and Graphical	25.9.2013	Secondary Data	No
Poster (Good Housekeeping)	It consists of different elements of housekeeping	Descriptive and Graphical	27.9.2013	Secondary Data	No
Poster on (Renewable Energy)	Solar energy, Wind Energy, Geothermal energy ,Tidal Energy	Descriptive and Graphical	7.10.2013	Secondary Data	No
Poster (Cleaner Production)	It consist of Cleaner Production concept, Benefits of Cleaner Production	Graphical	15.10.2013	Secondary Data	No

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/y ear of last data point</i>)	Source(s) of data	Online Availabil ity (<i>Whether uploaded on ENVIS Website</i>)
Poster (Industrial application of solar energy)	It consist of different application of solar energy in industry	Graphical	21.10.2013	Secondary Data	No
Poster (A to Z of cleaner production)	Cleaner Production applications in different environmental problems	Descriptive and Graphical	25.10.2013	Secondary Data	No
CP guidelines in Dyes and Dye Intermediate s	A book on Cleaner Production processes and CP techniques in Dyes and Dye Intermediates	Descriptive	30.10.2013	Secondary Data	No
Cleaner Production in Electroplatin g	Article on CP in Electroplating industries with case studies	Descriptive	2.11.2013	Secondary Data	No
Cleaner Production in Textile Industry	Article on CP in Textile Industry with case studies	Descriptive	8.11.2013	Primary Data	No
Cleaner Production in Waste Paper Recycling Industrial Sector	Article on CP in Waste Paper Recycling Industrial Sector with case studies	Descriptive	14.11.2013	Secondary Data	No
Cleaner Production in Foundry Industries	Article on CP in Foundry Industries	Descriptive	22.11.2013	Secondary Data	No
Cleaner Production in Pulp and Paper Sector	A small booklet on CP/CT Implementation in Pulp and Paper	Descriptive and Graphical	28.11.2013	Primary Data	No

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/y ear of last data point</i>)	Source(s) of data	Online Availabil ity (<i>Whether uploaded on ENVIS Website</i>)
	Sector with case studies generated and compiled by GCPC				
Textile Sector	A small booklet on CP/CT Implementation in Textile Sector with case studies generated and compiled by GCPC	Descriptive and Graphical	4.12.2013	Primary Data	No
A leaflet on Stone Crushing Unit	CP Tips with process flowchart standards for suspended particulate matter, Sources and Adverse impact of Dust, with quarry and Environmental problems in Stone crushers	Descriptive and Graphical	13.12.2013	Primary Data	No
Poster on Stone Crushing Unit	Pictures of different stone crushing unit and equipments used for the same	Graphical	19.12.2013	Primary Data	No
Leaflet on 4R Profitable Road for Sustainable Development	Facts and Advantages of 4R Concept	Descriptive and Graphical	23.12.2013	Secondary Data	No
Poster on Responsible Production	Concept of Responsible Production	Graphical	26.12.2013	Primary Data	Yes
8 Abstracts are available	Abstract on ▪ Resin	Descriptive	27.12.2013	Secondary Data	No

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/y ear of last data point</i>)	Source(s) of data	Online Availabil ity (<i>Whether uploaded on ENVIS Website</i>)
	<p>Production Chemical Industry</p> <ul style="list-style-type: none"> ▪ Cleaning- reduce the variety of chemicals in use <p>Quantitative evaluation method for the promotion of cleaner production using non-chlorinated cleaning alternatives in electroplating job shops</p> <ul style="list-style-type: none"> ▪ Economic Growth with Cleaner Production <p>Waste water- an untapped resource and opportunity, not a problem</p> <ul style="list-style-type: none"> ▪ waste reduction case studies ▪ Removal of Arsenic (III) by activated tea waste and activated charcoal: A Comparative Study. ▪ Cleaner 				

Name of Database	Description (in brief)	Data type (descriptive/ graphical/ geospatial/ etc.)	Status of Updation/ Periodicity/ Data Points Compiled (including date/month/y ear of last data point)	Source(s) of data	Online Availabil ity (Whether uploaded on ENVIS Website)
	Production Cases in Textile ▪ Industry				
Poster on 4R Key to Clean and Green Environment	Reduce, Reuse, Recycle and Recover (Paper/Plastic/Glass)	Descriptive and Graphical	27.12.2013	Secondary Data	No
Poster on Cleaner Production in Electroplating Industry	Electroplating is one of the varieties of several techniques of Metal Finishing	Descriptive and Graphical	27.12.2013	Secondary Data	No
Poster on Process Intensification in Vinyl Sulphone in Dye Sector	Objective and Scope / Manufacturing Process	Descriptive and Graphical	27.12.2013	Primary Data	No
CP/CT Measures for Major Polluting Sector	Cleaner Production Processes for 17 major polluting industries 1.Pulp & Paper Industries 2.Distillery Sector 3.Pesticide Sector 4.Fertilizer Industry 5.Caustic Soda Chlor Alkali 6.CementSector 7.Aluminium Smelting Sector 8.Dyes and Dye Intermediates Sector 9.Steel & Iron Sector 10.Sugar	Descriptive and graphical	06.1.2014	Secondary Data http://gcpcenvis.nic.in/cpct_measures.aspx	Yes

Name of Database	Description (in brief)	Data type (descriptive/ graphical/ geospatial/ etc.)	Status of Updation/ Periodicity/ Data Points Compiled (including date/month/y ear of last data point)	Source(s) of data	Online Availabil ity (Whether uploaded on ENVIS Website)
	manufacturing sector 11.Oil Refinery Sector 12.Petrochemical Industry 13.Copper Smelting Industries 14.Thermal Power Plants 15.Leaner Industries 16.Pharmaceutical Sector 17.Zinc Smelting Industries				
Green Growth Cleaner Production	Potential of Green Growth in India and Gujarat and the initiatives taken by the state of Gujarat for environment conservation	Descriptive	13.1.2014	Secondary Data http://gcpcenvis.nic.in/Experts/Green%20Growth%20Cleaner%20Production.pdf	Yes
Cleaner Production and Sustainability	Sustainable Development and CP tools to achieve sustainability	Descriptive	21.1.2014	Secondary Data http://gcpcenvis.nic.in/Experts/Cleaner%20Production%20&%20Sustainability.pdf	Yes

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)
Cleaner Production Policy	Industrial Policy and Policies to promote CP – An Indian Perspective.	Descriptive	24.1.2014	Secondary Data http://gcpcenvs.nic.in/Cleaner.aspx	Yes
Research Paper on CP	Research Topics- Subject Area – Related Links are provided (Research Paper on <ul style="list-style-type: none"> ▪ Cleaner Production ▪ Waste Minimization ▪ Energy Conservation etc.) 	Descriptive	12.3.2014	Secondary Data http://gcpcenvs.nic.in/Research_paper-1.pdf	Yes
CP in Offices	Tips to execute CP in Offices	Descriptive and Graphical	26.11.2013	Secondary Data http://gcpcenvs.nic.in/CP%20in%20office.pdf	Yes
Tips to go Green	Ways to save energy and to minimize waste	Descriptive and Graphical	26.11.2013	Secondary Data http://gcpcenvs.nic.in/TIPS%20TO%20GO%20GREEN.pdf	Yes
4R in Waste Paper Unit	Solid Waste Management of Waste Paper	Graphical	6.12.2013	Secondary Data http://gcpcenvs.nic.in/4R%20in%20waste%20paper%20unit.png	Yes
3R in Paper Unit	Reuse, Recycle and Recover in waste paper based mill	Graphical	6.12.2014	Secondary Data http://gcpcenvs.nic.in/3R%20in%20paper%20unit.png	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/y ear of last data point</i>)	Source(s) of data	Online Availabil ity (<i>Whether uploaded on ENVIS Website</i>)
Global Warming	Causes and Effects of Global Warming	Graphical and Descriptive	14.2.2014	Secondary Data http://gcpcenviis.nic.in/Global%20Warming.JPG	Yes
Plastic Use	Tips to No Plastic	Graphical	27.2.2014	Secondary Data http://gcpcenviis.nic.in/Plastic%20Use.JPG	Yes
4R Concept	Environment Friendly Practices with Waste Management	Graphical and Descriptive	1.3.2014	Secondary Data http://gcpcenviis.nic.in/4R%20Concept.JPG	Yes
Green Economy	Need for Green Economy	Graphical and Descriptive	2.4.2014	Secondary Data http://gcpcenviis.nic.in/Green%20Economy.pdf	Yes
Textile Bio-Sourcing Poster	Application of Bio-Sourcing process in Textile Sector	Descriptive	2.3.2014	Primary Data http://gcpcenviis.nic.in/Textile%20-%20Bio%20sourcing%20Poster.JPG	Yes
Responsible Production	Tips to Responsible Production	Graphical and Descriptive	2.3.2014	Primary Data http://gcpcenviis.nic.in/Responsible%20Production.pdf	Yes
Experts	Details of Regional Experts, National Experts and International Experts on the subject “Cleaner Production and Clean Technology”	Descriptive	6.3.2014	Primary Data http://gcpcenviis.nic.in/Experts.aspx	Yes
CP Case Studies	Case Study on Cleaner Production Implementation in	Graphical and Descriptive	17.2.2014	Primary Data http://gcpcgujarat.org.in/layout.php?mid=4	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/y ear of last data point</i>)	Source(s) of data	Online Availabil ity (<i>Whether uploaded on ENVIS Website</i>)
	<ul style="list-style-type: none"> ▪ Chemical Sector ▪ Dyes and Dye Intermediates Sector ▪ Dairy Sector ▪ Textile Sector ▪ Fishery Sector ▪ Stone Crushing Sector ▪ Pulp and Paper Sector ▪ Electroplating Sector ▪ Service Sector and Responsible Production (documented by GCPC) 				
Basic Concept of Cleaner Production	A Brief on CP tools, Concepts, Methodology, CP in Practice, Benefits, Heirarchy, CP Vs EoP, What is not CP and Waste Minimization	Graphical and Descriptive	20.3.2014	Secondary Data http://www.gcpcenviis.nic.in/Cp_consept_tools_methodology_etc.aspx	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/y ear of last data point</i>)	Source(s) of data	Online Availabil ity (<i>Whether uploaded on ENVIS Website</i>)
Glossary	Meanings and Synonyms of difficult words related to our subject Cleaner Production / Clean Technology	Descriptive	23.3.2014	Secondary Data http://www.gcpcenv.is.nic.in/Glossary.aspx	Yes
Bibliography	Bibliographies on <ul style="list-style-type: none"> ▪ Solid waste and water Management ▪ Cleaner Production ▪ Physical and Chemical Engineering Sciences Green Economy <ul style="list-style-type: none"> ▪ Sustainable Development 	Descriptive and Graphical	22.3.2014	Secondary Data http://www.gcpcenv.is.nic.in/Bibliography.aspx	Yes
Books	Cover Page and Description about the book on topics e.g.: <ol style="list-style-type: none"> 1.Cleaner Production and Energy Conservation for Sustainable Development 2.Clean Technology 3.Pollution Prevention 4.Cleaner 	Descriptive	26.11.2013	Secondary Data http://www.gcpcenv.is.nic.in/BooksOnCP.aspx	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availability (<i>Whether uploaded on ENVIS Website</i>)
	Production and Industrial Ecology 5.Cleaner Production Technologies, Tools for Resource Efficient Production etc.				
E-bulletin	On different environment and related topics 1. Carbon Credit 2. Sustainable Initiatives taken by Government of Gujarat 3. Climate Change etc.	Descriptive	Bi monthly	Secondary Data http://www.gpcpcenv.is.nic.in/EBulletin.aspx	Yes
Thesis / Reports	On different topics such as <ul style="list-style-type: none"> ▪ Cleaner Production ▪ Sustainable Development ▪ Waste Minimization ▪ Waste Management etc. 	Descriptive Information	On availability	Secondary Data	Yes
Case Studies	Case Studies of Asia Pacific Region of different industrial sectors such as <ul style="list-style-type: none"> ▪ Foundry Sector ▪ Food & 	Descriptive information of different industrial sectors of Asia Pacific region with graphs and tables	Updation depending on the availability of data	Secondary Data http://www.gpcpcenv.is.nic.in/CaseStudy.aspx	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/y ear of last data point</i>)	Source(s) of data	Online Availabil ity (<i>Whether uploaded on ENVIS Website</i>)
	Beverage Sector <ul style="list-style-type: none"> ▪ Cement Sector ▪ Ceramic Sector ▪ Pulp & Paper Sector ▪ Rubber & Textile Sector ▪ Chemicals & Dyes n Dye Intermediates Sector and Miscellaneous 				
Videos / ppt	Videos and Presentation on CP and related topics 1. Videos on CP Concept & Methodology and CP Implementation in various industrial sectors such as <ul style="list-style-type: none"> ▪ Paper Sector ▪ Cement Sector ▪ Textile and Steel Sector 	Descriptive	Updation depending on the availability of data	Secondary data http://www.gcpcenviis.nic.in/Videos.aspx	Yes

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)
	2.Presentation on <ul style="list-style-type: none"> ▪ Basics of Cleaner Production ▪ Cleaner Production in Office ▪ Cleaner Production Opportunities in Pulp and Paper Sector 				
BAT (Best Available Techniques) documents	Detailed information of BAT documents of different industrial sector by European Commission and Stockholm convention on POPs <ul style="list-style-type: none"> ▪ Cement ▪ Ceramic ▪ Textile ▪ Pulp and Paper Sector etc. 	Descriptive information	Updation depending on the availability of data	Secondary Data http://www.gcpcenv.is.nic.in/BATDoc.aspx	Yes
CP Institute / Network	List of CP Institutes in India	List in Tabular form	Updation depending upon the availability of data	Secondary data http://www.gcpcenv.is.nic.in/List%20of%20Institutes.pdf	Yes
Guideline	Cleaner Production Implementation in Dairy Sector	Descriptive / Graphical / Numeric	Uploaded	Primary Data http://www.gcpcenv.is.nic.in/Manuals_Guideline/CP_in_dair	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/y ear of last data point</i>)	Source(s) of data	Online Availabil ity (<i>Whether uploaded on ENVIS Website</i>)
				y_sector.pdf	
Posters/Leaflets	Posters on Cleaner Production Application in different industrial sectors and environment related issues	Descriptive and Graphical	Uploaded on website	Secondary Data http://www.gcpcenv.is.nic.in/Poster.aspx	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 http://www.gcpcenv.is.nic.in/BooksOnCP.aspx	Yes
Manuals / Guidelines	Manuals and Guidelines on <ul style="list-style-type: none"> ▪ Cleaner Production ▪ Pollution Prevention Including cleaner production guidelines in different industrial sectors such as: Textile, Paint Manufacturing etc.	Descriptive and Graphical	On availability	Secondary data http://www.gcpcenv.is.nic.in/Manuals.aspx	Yes

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)
Research Paper	List of research paper links on different topics / subjects of different countries such as <ul style="list-style-type: none"> ▪ Cleaner Production ▪ Energy conservation ▪ Pollution Prevention etc. 	Descriptive and Graphical	Updation depending on the availability of data	Secondary Data http://www.gcpcenv.is.nic.in/PDF/Research_Paper_with_Links_Modified_Final.pdf	Yes
Environment News	Listed in a calendar format year wise (News related to Environmental Conservation Measures taken by Government Institutions, Waste Minimization, Pollution Prevention, Renewable energy Initiatives taken by different countries etc.	Descriptive	Monthly	Secondary data http://www.gcpcenv.is.nic.in/EnvironmentalNews2016.aspx	Yes
Events	Bifurcated as national and international event (Upcoming events all over the world related to cleaner production, waste minimization, pollution prevention,	Descriptive	Updation depending on the availability of data	Secondary data http://www.gcpcenv.is.nic.in/UpcomingEvents.aspx	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/y ear of last data point</i>)	Source(s) of data	Online Availabil ity (<i>Whether uploaded on ENVIS Website</i>)
	chemical and environment engineering etc.				
Benchmarks in various sectors	Benchmarks in energy and water consumption of different industrial Sectors of different countries (different sectors such as: 1.Pulp & Paper Sector 2. Textile Sector 3.Chemical Sector 4.Food Processing Sector	Numeric and Spatial	Updation depending on the availability of data	Secondary data http://www.gcpcenv.is.nic.in/Benchmark.s.aspx	Yes
CP rewards in industries	Total annual savings in different industrial sectors by implementing CP tools (industrial sectors such as: <ul style="list-style-type: none"> ▪ Dyes & Dye Intermediate Industry ▪ Pharmaceutical Industry ▪ Textile ▪ Dairy ▪ Stone Crushing ▪ Iron & Steel ▪ Mining & Mineral 	Numeric and Graphical	Uploaded	Secondary Data http://www.gcpcenv.is.nic.in/cp%20rewards%20in%20industries.pdf	Yes

Name of Database	Description (in brief)	Data type (descriptive/ graphical/ geospatial/ etc.)	Status of Updation/ Periodicity/ Data Points Compiled (including date/month/y ear of last data point)	Source(s) of data	Online Availabil ity (Whether uploaded on ENVIS Website)
	<ul style="list-style-type: none"> ▪ Ceramic ▪ Foundry ▪ Sugar ▪ Cement ▪ Thermal Power Sector etc. 				
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	Secondary data http://www.gcpcenv.is.nic.in/Follow.aspx	Yes
	Animated Videos	Video	On Availability	Secondary data http://www.gcpcenv.is.nic.in/AnimatedVideos.aspx	Yes
	Drawings (done by school children)	Images	On availability	Secondary data http://www.gcpcenv.is.nic.in/Drawing.aspx	Yes
	Presentation	Descriptive	23.1.2015	Secondary data http://www.gcpcenv.is.nic.in/Presentation_ppt.aspx	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/y ear of last data point</i>)	Source(s) of data	Online Availabil ity (<i>Whether uploaded on ENVIS Website</i>)
Water Footprint	-Corporate water footprint - Global water footprint - Water footprint calculations - National Water footprint - Water footprint	Descriptive	19.3.2015	Secondary data	No
Carbon Footprint	-Carbon emissions - Beginning of carbon footprint - Global CO2 Budget - Ways to reduce Carbon Footprint - Calculate Carbon Footprint	Descriptive	19.3.2015	Secondary data	Yes
Cleaner Production., Health, Hygiene & Environment	An article on how CP helps improving health, hygiene and environment	Descriptive	19.3.2015	Secondary data http://www.gpcpcenv.is.nic.in/Health%20&%20Hygiene.pdf	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

8.2. 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)
CP Potentials in Industrial Sectors	Potential for Cleaner Production Dyes and Dye Intermediates, Electroplating, Pulp and Paper, Tannery and Hosiery Processing Units	Depending on availability of data 9.1.2015	Secondary Data http://www.gcpcenvis.nic.in/CP_potential_in_industrial_sector.pdf	Yes
Data on CP activities	CP promotional activities in colleges and industrial estates	Depending on availability of data	Primary data http://www.gcpcenvis.nic.in/Experiments/Numeric%20data.pdf	Yes
Benchmarks	The Water and Energy Consumption of different countries in different industrial sectors Such as <ul style="list-style-type: none"> ▪ Pulp & Paper Sector ▪ Textile Sector ▪ Chemical Sector ▪ Food Processing Sector 	Depending on availability of data 9.1.2015	Secondary data http://www.gcpcenvis.nic.in/Benchmarks.aspx	Yes

Kindly note that the details of Catalogue of Numeric and Time-series Databases compiled by the Centre from the inception upto 2013 are available on <http://gcpcenvis.nic.in/AnnualReports.aspx> in the annual reports.

8.3. New Databases developed during the Financial Year (2015-16)

8.3.1. Non-numeric Databases:

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
Environmental News	Listed in a calendar format year wise	Descriptive	Monthly	Secondary Data http://www.gcpcenvis.nic.in/EnvironmentalNews2016.aspx	Yes
Publication	E Bullet in on different environment topics <ul style="list-style-type: none"> ▪ Carbon Credit ▪ Integrated Solid Waste Management ▪ Sustainable Development Initiatives taken by Government of Gujarat ▪ E-Waste ▪ Industrial Symbiosis 	Descriptive	Bimonthly 5.5.2015 24.6.2015 14.10.2015 21.12.2015 4.1.2016	Secondary Data http://www.gcpcenvis.nic.in/EBulletin.aspx	Yes
	Poster / Leaflets <ul style="list-style-type: none"> ▪ Clean & Energy Efficient Product in Dyes and Dye Intermediate Sector ▪ Save World ▪ Best Available Techniques in Textile ▪ Cleaner Production in Common Effluent 	Descriptive and Graphical	Uploaded on Website 13.3.2015 6.10.2015 24.2.2016 24.2.2016	Secondary data http://www.gcpcenvis.nic.in/Poster.aspx	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
	Treatment Plants <ul style="list-style-type: none"> ▪ Cleaner Production in Office ▪ Eco-Innovation ▪ Industrial Symbiosis ▪ Process Intensification (submitted during the national evaluation workshop held from 17-20, February, 2016) 		24.2.2016 24.2.2016 24.2.2016 24.2.2016		
	Books <ul style="list-style-type: none"> ▪ Integration of Research to Industrial Application (Abstracts) ▪ Case Studies on 15 identified polluting sectors ▪ Eco-Innovation ▪ ENVIS Brochure 		13.8.2015 24.2.2016 24.2.2016 24.2.2016	Secondary Data http://www.gcpcenvis.nic.in/Book.aspx	
Events	National and International Events	Descriptive	Monthly / Weekly depending on availability of data	Secondary Data http://www.gcpcenvis.nic.in/UpcomingEvents.aspx	Yes

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 Availabili ty (Whether uploaded on ENVIS Website)
CP Archive	Case Studies of Asia and other regions on different industrial sectors such as Foundry, Food & Beverage, Cement, Ceramic, Pulp & Paper, Rubber & Textile, Chemicals & Dyes and Dye Intermediates and Miscellaneous	Descriptive information of different industrial sectors of Asia Pacific Region with graphs and tables	Monthly	Secondary Data http://www.gcpcenvis.nic.in/CaseStudy.aspx	Yes
	(Manuals and Guidelines on different environment related issues) <ul style="list-style-type: none"> ▪ Legal Guidelines on Reduce, Reuse and Recycle Waste for Government of Gujarat ▪ Guide to pollution prevention in: Paint Manufacturing Industry ▪ Cleaner Production Guide for Textile Industries ▪ Guidelines for Abatement of Pollution in Steel Re-rolling Mills ▪ Good Housekeeping Manual ▪ Handbook of Pollution Control and Waste Minimization 	Descriptive and Numeric	15.6.2015 15.6.2015 29.6.2015 29.6.2015 6.7.2015 5.7.2015	Secondary Data http://www.gcpcenvis.nic.in/Manuals.aspx	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
	<ul style="list-style-type: none"> ▪ Policy Options to overcome barriers to industrial energy efficiency in developing countries ▪ Manual for Cleaner Production in Hotels ▪ Guidelines for Abatement of Pollution in Textile Industry 		<p>4.7.2015</p> <p>24.7.2015</p> <p>18.9.2015</p>		
	<p>(Thesis and Reports)</p> <ul style="list-style-type: none"> ▪ Cost benefits analysis of cleaner production technologies in India ▪ National Assessment Report in various dimensions related to sustainable development ▪ Applying Cleaner Production to Multilateral Environment Agreements ▪ Textile Industries in India ▪ The Scheme on Development and Promotion of Clean Technologies and Waste Minimization Strategies 	Descriptive and Numeric	<p>17.6.2015</p> <p>17.6.2015</p> <p>29.6.2015</p> <p>29.6.2015</p> <p>4.7.2015</p>	Secondary Data http://www.gcpcenvis.nic.in/Thesis.aspx	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
	<ul style="list-style-type: none"> ▪ Waste Stream Reduction and Re-use in Pulp and Paper Sector ▪ Food Processing Sector in India ▪ Pharmaceutical Industry in India ▪ Energy Management in Pulp & Paper Industry ▪ Cleaner Production Opportunity Assessment for market milk production 		<p>4.7.2015</p> <p>13.10.2015</p> <p>20.11.2015</p> <p>10.2.2016</p> <p>10.2.2016</p>		
	<p>(List of Research Paper links on different topics/subjects of different countries)</p> <ul style="list-style-type: none"> ▪ Pollution Prevention in Pulp & Paper Industry, Turkey ▪ Cleaner Production and Eco-Efficiency Initiatives in Western Australia ▪ Study on Industrial Waste Effluent and their Management at selected Food and Beverage Industries of Bangladesh ▪ Cleaner Production and 	Descriptive and Graphical	<p>17.6.2015</p> <p>3.8.2015</p> <p>22.12.2015</p> <p>12.2.2016</p>	<p>Secondary Data</p> <p>http://www.gcpcenvis.nic.in/PDF/Research_Paper_with_Links_Modified_Final.pdf</p>	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
	Energy Efficiency- A Case Study from Chemical Industry, Thailand				
	Videos/PPTs Presentation on: <ul style="list-style-type: none"> ▪ Development of CP Policies: Approaches and Instruments ▪ Business Partnership Programme for Development of Selected Industrial Sectors ▪ Company Energy Efficiency Methodology ▪ Reducing Resource Intensity of Industrial Processes: Technology Trajectory and Drivers ▪ Recycling of Paper in India 	Descriptive	19.6.2015 19.6.2015 19.6.2015 14.7.2015 8.2.2016	Secondary Data http://www.gcpcenvis.nic.in/Videos.aspx	Yes
	(CP Related Books) <ul style="list-style-type: none"> ▪ Cleaner Production and Energy Conservation for Sustainable Development ▪ Cradle-to-Cradle 	Descriptive	On Availability 15.9.2015 3.10.2015	Secondary Data http://www.gcpcenvis.nic.in/BooksOnCP.aspx	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
CP/CT Database	<ul style="list-style-type: none"> ▪ Industrial Policy and Policies to promote Cleaner Production- Indian and International Scenario <ol style="list-style-type: none"> 1. Gujarat Industrial Policy 2015 2. Cleaner Production Policy under Industrial Policy of different states such as: Andhra Pradesh, Karnataka, Maharashtra 3. Cleaner Production Policies under industrial policies of different countries such as: <ul style="list-style-type: none"> ▪ Vietnam ▪ China ▪ Srilanka ▪ Malaysia ▪ South Africa ▪ Latin America and Caribbean region ▪ Romania ▪ United Kingdom (U.K.) 	Descriptive	25.5.2015	Secondary Data http://www.gcpcenvis.nic.in/Cleaner.aspx	Yes
	<ul style="list-style-type: none"> ▪ List of Cleaner Production Centers around the Globe in which contact 	Descriptive	29.5.2015	Secondary Data http://www.gcpcenvis.nic.in/PDF/	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
	<p>details & (link) of website of Cleaner Production Centers of</p> <ol style="list-style-type: none"> 1.Africa Region 2.Arab Region 3.Asia and Pacific Region 4. Eastern Europe, Caucasus, Central Asia (EECCA) region 5.Latin America & Caribbean Region <p>is provided</p>			Cleaner Production Centers Around The Globe.pdf	
	<ul style="list-style-type: none"> ▪ Co-Processing (The concept and benefits of co-processing is provided) 	Descriptive and Numeric	29.9.2015	Secondary Data http://www.gcpcenvis.nic.in/PDF/Co-Processing.pdf	Yes
	<ul style="list-style-type: none"> ▪ Document by on the concept of Cleaner Production and Eco-Efficiency 	Descriptive	9.12.2015	Secondary Data http://www.gcpcenvis.nic.in/PDF/eco%20efficiency%20and%20CP.pdf	Yes
	<ul style="list-style-type: none"> ▪ Document on Business Case of Eco Innovation (concept and benefits of eco-innovation with Case Studies) 	Descriptive and Graphical	6.1.2015	Secondary Data http://www.gcpcenvis.nic.in/PDF/business_case_study_of_eco_innovation_2014.pdf	Yes

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 Availabili ty (Whether uploaded on ENVIS Website)
Glossary	Words related to Cleaner Production, Clean Technology, Waste Minimization, Pollution Prevention, Environment etc.	Descriptive	Monthly	Secondary Data http://www.gcpcenvis.nic.in/Glossary.aspx	Yes
Scrolling Bar	<ul style="list-style-type: none"> Message of Shri. Prakash Javadekar, Minister of State (Independent Charge) Environment, Forest and Climate Change, Government of India on World Environment Day-5th June,2015 (4.6.2015) 	Descriptive	4.6.2015	Secondary Data http://www.gcpcenvis.nic.in/PDF/Message%20of%20Minister%20for%20WE D%202015.pdf	Yes
	<ul style="list-style-type: none"> Video on My Government Talk with Hon'ble Minister Shri. Prakash Javadekar (5.11.2015) 	Video	5.11.2015	Secondary Data	Yes
Major Activity	<ul style="list-style-type: none"> Report and Presentation and Celebration of World Environment Day-2015 by GCPC-ENVIS Centre (10.6.2015) 	Descriptive	10.6.2015	Primary Data http://www.gcpcenvis.nic.in/PDF/wed-2015.pdf	Yes
	<ul style="list-style-type: none"> Report on Capacity Building Programme for 	Descriptive	23.9.2015	Primary Data	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
	GCPC-ENVIS Staff Members (23.9.2015)			http://www.gcpcenvis.nic.in/Experts/In-House%20Presentation%20Report.pdf	
	<ul style="list-style-type: none"> ▪ Report on Celebration of World Ozone Day-2015 by GCPC-ENVIS Centre (28.9.2015) 	Descriptive	28.9.2015	Primary Data http://www.gcpcenvis.nic.in/Experts/Ozone%20day%20celebration%20at%20GCPC%20-%202016%20Sep%202015.pdf	Yes
	<ul style="list-style-type: none"> ▪ Report on Contribution of GCPC-ENVIS, Gujarat for India's Intended Nationally Determined Contribution (IINDC) (14.10.2015) 	Descriptive	14.10.2015	Primary Data http://www.gcpcenvis.nic.in/PDF/CONTRIBUTION%20OOF%20GCPC-ENVIS%20GUJARAT%20FOR%20IINDC%20WORKING%20TOWARDS%20CLIMATE%20JUSTICE.pdf	Yes

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 Availabili ty (Whether uploaded on ENVIS Website)
	<ul style="list-style-type: none"> Report on Training on Customized Hands-on Bhuvan Training, NRSC, Jodhpur (15.10.2015) 	Descriptive	15.10.15	Primary Data	Yes
	<ul style="list-style-type: none"> Report on Cleaner Production Programme in Household, conducted by GCPC-ENVIS at Gandhinagar (16.10.2015) 	Descriptive	16.10.2015	Primary Data http://www.gcpcenvis.nic.in/PDF/Report%20of%20BVP.pdf	Yes
	<ul style="list-style-type: none"> Report on Capacity Building Programme for GCPC-ENVIS Staff Members, GCPC, Gandhinagar (24.11.2015) 	Descriptive	24.11.2015	http://www.gcpcenvis.nic.in/Experts/Capacity%20Building%20Programme%2003.pdf Primary Data	Yes
	<ul style="list-style-type: none"> Report on RE-ENVIS Workshop “Seminar on Ecological Aspects of Renewable Energy, GEER Foundation, Gandhinagar (4.12.2015) 	Descriptive	4.12.2015	Primary Data http://www.gcpcenvis.nic.in/PDF/RE-ENVIS%20Workshop%20for%20Website%20&%20Newsletters.pdf	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
	<ul style="list-style-type: none"> ▪ Report on Visit of Shri. Abhay Kumar, Deputy Economic Advisor, Ministry of Environment, Forest and Climate Change, Government of India at GCPC-ENVIS Centre on 5th December, 2015 (9.12.2015) 	Descriptive	9.12.2015	Primary Data http://www.gcpcenvis.nic.in/PDF/Report%20on%20Proposed%20Action%20Plan%20and%20Initiatives%20taking%20duri ng%20fina ncial%20Y ear%20201 5-16.pdf	Yes
	<ul style="list-style-type: none"> ▪ Report of Participation by Gujarat Cleaner Production Centre – ENVIS Centre in National Evaluation Workshop for ENVIS Centres held from 17-20 February, 2016 at New Delhi 	Descriptive	15.3.2016	Primary Data	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
Kids / Student Zone	(Grasp & Follow) <ul style="list-style-type: none"> ▪ Poster on Simple Tips to Save Water ▪ Save Fuel ▪ Tips on Waste Free Activities / Ideas for School ▪ Tips to Green At School 	Descriptive and Picturesque	30.1.2015 30.1.2015 10.2.2015 14.3.2016	Secondary Data http://www.gcpcenvis.nic.in/Follow.aspx	Yes
	(Animated Videos) <ul style="list-style-type: none"> ▪ Save Electricity ▪ Save Water to help Earth ▪ Plastic Planet ▪ Don't Waste your Waste ▪ Waste Electronics-How they are recycled ▪ Use Less Paper and Save Trees ▪ Segregation of Garbage ▪ Waste-to-Energy Animation for Kids ▪ Children Earth's Resources 	Video	Monthly 22.6.2015 22.6.2015 4.8.2015 15.9.2015 23.11.2015 2.12.2015 4.1.2016 15.1.2016 6.2.2016	Secondary Data http://www.gcpcenvis.nic.in/AnimatedVideos.aspx	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
	(Drawings on environment management by school students - 8 pictures)	Picturesque	24.8.2015	Secondary Data http://www.gpcenvis.nic.in/Drawing.aspx	Yes
	Environment Calendar (World Ozone Day-2015)	Descriptive	On Availability of Data	Secondary Data http://www.gpcenvis.nic.in/CelebrateDays.aspx	Yes
	Presentation on Energy Conservation	Descriptive	22.12.2015	Secondary Data http://www.gpcenvis.nic.in/Presentation_ppt.aspx	Yes
Bibliography	<ul style="list-style-type: none"> ▪ Spatial Distribution of economic activities of transboundary pollutions ▪ Facilitating Waste Paper Recycling ▪ Multi-objective optimization of waste and resource management in industrial networks ▪ Greening of Industry Resource Guide & Bibliography ▪ Assessment of Cleaner Production Level in Agro Based Industries 	Summary of the bibliography with links	<p>22.6.2015</p> <p>6.8.2015</p> <p>6.8.2015</p> <p>10.9.2015</p> <p>6.10.2015</p>	Secondary Data http://www.gpcenvis.nic.in/Bibliography.aspx	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
	<ul style="list-style-type: none"> ▪ Cleaner Production Implementation in Fruit Juice Production Plant ▪ Electricity from Waste ▪ Cleaner Production in Coconut Industry, Sri Lanka ▪ Towards Cleaner Technologies in Small and Micro Enterprises: A Process Based Case Study of Foundry Industry in India ▪ Sustainable textile production: Cleaner Production Assessment / Eco-Efficiency Analysis Study in a Textile Mill 		<p>19.11.2015</p> <p>8.12.2015</p> <p>5.1.2016</p> <p>15.2.2016</p> <p>10.3.2016</p>		
Cleaner Production for Better Environment	<ul style="list-style-type: none"> ▪ Environment Management System and Cleaner Production ▪ Presentation on CO₂ flooding as an oil recovery process 	Descriptive	<p>8.8.2015</p> <p>28.9.2015</p>	Secondary Data	Yes

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
	<ul style="list-style-type: none"> ▪ Presentation on Wind Energy Collectors ▪ Waste-to-Energy Concept ▪ Solar Energy ▪ Clean Development Mechanism ▪ Energy Saving Opportunities in Office ▪ Waste Exchange Bank ▪ Carbon Capture and Storage ▪ Handbook on The State-of-the-Art Clean Technologies (SOACT) for Steel Making ▪ Air Quality Index ▪ Water Quality Index ▪ Energy Conservation in Office (Gujarati) ▪ Tips to Save Water (Hindi) 		<p>28.9.2015</p> <p>23.10.2015</p> <p>23.10.2015</p> <p>6.11.2015</p> <p>9.12.2015</p> <p>23.12.2015</p> <p>13.1.2016</p> <p>25.1.2016</p> <p>9.2.2016</p> <p>9.2.2016</p> <p>15.2.2016</p> <p>10.3.2016</p> <p>11.3.2016</p>		

Name of Database	Description (<i>in brief</i>)	Data type (<i>descriptive/ graphical/ geospatial/ etc.</i>)	Status of Updation/ Periodicity/ Data Points Compiled (<i>including date/month/year of last data point</i>)	Source(s) of data	Online Availabili ty (<i>Whether uploaded on ENVIS Website</i>)
	<ul style="list-style-type: none"> ▪ Cleaner Production in Home Optimized ▪ Hints & Tips for improving resource efficiency in your business 		14.3.2016 14.3.2016		
Annual Report	<ul style="list-style-type: none"> ▪ Annual Report 2014-15 	Descriptive	16.7.2015	Primary Data http://www.gcpcenvis.nic.in/AnnualReports/Annual_Report_2014-15.pdf	Yes
Photo Gallery	<ul style="list-style-type: none"> ▪ Photos of Regional Evaluation Workshop for ENVIS Centres (Western Region) NEERI, Nagpur on 16-17, February,2015 ▪ Photos of National Evaluation Workshop for ENVIS Centres, New Delhi on 17-20, February,2016 	Picturesque	March,2016	Primary Data http://www.gcpcenvis.nic.in/ViewAlbum.aspx	Yes

8.3.2. 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)
CP/CT Database	A Study of Resource Consumption and Waste Generation in 25 Industries of Dyeing and Printing	Other (Numeric) 9.7.2015	Primary Data http://www.gcpcenvi.s.nic.in/PDF/Dyeing%20&%20Printing%20Cluster.pdf	Yes
CP/CT Database	Resource Efficient and Cleaner Production experience in M/s. Somany Ceramics Ltd., Gujarat, India	23.10.2015	Primary Data http://www.gcpcenvi.s.nic.in/PDF/RECP%20Experiences_India_GCPC_%20somany%20ceramics_final.pdf	Yes
CP/CT Database	Resource Efficient and Cleaner Production experience in M/s. Atul Ltd., Gujarat, India	3.11.2015	Primary Data http://www.gcpcenvi.s.nic.in/PDF/214b704976eab0f550895bb6b4a072d1.pdf	Yes
CP/CT Database	<ul style="list-style-type: none"> ▪ Statistical Information on: <ol style="list-style-type: none"> 1. List of E-Waste Registered Recycler in the State of Gujarat 2. List of Registered Lead Recyclers Granted by Gujarat Pollution Control Board (GPCB) 3. List of Registered Zn/Cu Recyclers Granted by GPCB 4. List of Used Oil / Waste Oil Recyclers Granted by GPCB 5. Energy Statistics (2015) 6. Industrial Waste-to-Energy Potential in India 	16.1.2016 18.1.2016 19.1.2016 20.1.2016 9.2.2016 15.2.2016 15.2.2016	Secondary Data http://www.gcpcenvi.s.nic.in/Statistical_Information.aspx	Yes

	<p>7. Industrial Scenario of Water Pollution by Industries</p> <p>8. Renewable Energy Potential in Gujarat</p>	2.3.2016		
Bhuvan Portal	<p>Created new menu of “ Bhuvan Portal” in GCPC-ENVIS website:</p> <p>1. Information of Industrial Estates in Gujarat developed by Gujarat Industrial Development Corporation</p> <ul style="list-style-type: none"> ▶ DD Plan of all GIDC Industrial Estates in Gujarat ▶ GIS maps all GIDC Industrial Estates in Gujarat <p>2. Preliminary baseline assessment of Vapi Industrial Estate (GIDC), Gujarat which includes following details:</p> <p>1. Basic Infrastructure (Proposed plan for improving road and parking facilities)</p> <p>2. Plot wise green area percentage</p> <p>3. Locational and Regional Settings, Vapi</p> <p>4. Basic Infrastructure Mobility</p> <p>5. Basic Infrastructure facilities and Services in Vapi GIDC Industrial Estate (eg: fire station, service station, automobile service station etc.)</p> <p>6. Water Supply System in Vapi GIDC Industrial Estate</p> <p>7. Technical Infrastructure (eg: Administrative</p>	<p>Descriptive, Picturesque</p> <p>15.2.2016</p>	<p>Secondary Data</p> <p>http://www.gcpcenvi.s.nic.in/Envis-Bhuvan.aspx</p>	Yes


	<p>Building, Information Centre, Post Office, ATM etc.) Vapi GIDC Industrial Estate</p> <p>8.Environmental Infrastructure: Storm Water Management System in Vapi GIDC Industrial Estate</p> <p>9.Environmental Infrastructure: Waste Water Management in Vapi GIDC Industrial Estate</p> <p>10.Environmental Infrastructure: Soild Waste Management in Vapi GIDC Industrial Estate</p> <p>11.Environmental Infrastructure: Parks and Green Belts in Vapi GIDC Industrial Estate</p> <p>12.Social Infrastructure such as: Hospital, Ambulance, Hotels/Restaurants, Public Toilets etc. in Vapi GIDC Industrial Estate</p> <p>13.Landuse Map of Vapi GIDC Industrial Estate</p>			
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8.4. Status of data entry in ISBEID: (For State/ UT ENVIS Centres) – As in Annex: Not Applicable

9. Information/ Knowledge Products:




9.1. ENVIS Newsletters published during the Financial Year (2015-16):


Cover snapshot	Quarter/ Volume/ Issue/ Theme Main Articles	Number of copies printed and circulated	URL of the PDF file in ENVIS website (Kindly note that the PDF file should open without login prompt)
	<p>April-June,2015 (Volume No:13 / Issue No:2)</p> <ul style="list-style-type: none"> ▪ Open Windows of CP Centers in Latin America and Caribbean Region ▪ Cover Story: Soil Biotechnology ▪ Environmental News ▪ Events ▪ Eco-Product ▪ Overview of Dye and Dye Intermediate Sector in India ▪ BEE Star Rating for Building ▪ Snapshots 	<p>500/400</p>	<p>http://www.gpcpcenv.is.nic.in/Newsletter/Vol-13,%20No-2.pdf</p>
	<p>July-September,2015 (Volume No:13 / Issue No:3)</p> <ul style="list-style-type: none"> ▪ Celebration of World Ozone Day:2015 ▪ Cover Story: Solar Drying of Biological Sludge of CETP ▪ Environmental News ▪ Events ▪ Eco-Product ▪ Snapshots 	<p>600/500</p>	<p>http://www.gpcpcenv.is.nic.in/Newsletter/Vol-13,%20No-3.pdf</p>




	<p>October-December,2015 (Volume:13 / Issue No:4)</p> <ul style="list-style-type: none"> ▪ Raising the bar in boiler efficiency & recovery of water from flue gas-Doing things differently leading to sustainability, Atul Ltd. Aromatics Division, Ankleshwar ▪ Environmental News ▪ Events ▪ Eco-Products ▪ Snapshots 	<p>600/500</p>	
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9.2. Other publications/ information products brought out during the Financial Year (2015-16):

Cover snapshot	Publication/ Product Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF file in ENVIS website (Kindly note that the PDF file should open without login prompt)
	<p>Integration of Research to Industrial Application (Compilation of Abstracts on Cleaner Production / Clean Technology from Final year Students of M.S.C. Environmental Science, B.E. and M.E. Chemical and Environment Engineering (part – II)</p>	<p>250/250</p>	<p>http://www.gpcpcenv.is.nic.in/Books/2015-abstract%20to%20industrial%20application.pdf</p>
	<p>Cleaner Production Guidelines in Distillery Sector</p>	<p>200/150</p>	<p>http://www.gpcpcenv.is.nic.in/Manuals_Guideline/Distillery_Sector.pdf</p>


Cover snapshot	Publication/ Product Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF file in ENVIS website (Kindly note that the PDF file should open without login prompt)
	Cleaner Production Guidelines in Pesticide Manufacturing sector	200/150	http://www.gcpcenv.is.nic.in/Manuals_Guideline/Pesticide_Sector.pdf
	Cleaner Production Guidelines in Caustic Soda /chlor-alkali industries	200/150	http://www.gcpcenv.is.nic.in/Manuals_Guideline/Caustic_soda_Chlor_Alkali%20Industry.pdf
	Cleaner production guidelines in cement sector	200/150	http://www.gcpcenv.is.nic.in/Manuals_Guideline/Cement_sector.pdf

Cover snapshot	Publication/ Product Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF file in ENVIS website (Kindly note that the PDF file should open without login prompt)
	Cleaner production guidelines in aluminum smelting sector	200/150	To be uploaded on website shortly
	Cleaner production guidelines in steel and iron sector	200/150	http://www.gcpcenv.is.nic.in/Manuals_Guideline/Steel_iron_Sector.pdf
	Cleaner production guidelines in sugar manufacturing sector	200/150	http://www.gcpcenv.is.nic.in/Manuals_Guideline/sugar_manufacturing_Sector.p df

Cover snapshot	Publication/ Product Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF file in ENVIS website (Kindly note that the PDF file should open without login prompt)
	cleaner production guidelines in oil refinery sector	200/150	http://www.gcpcenv.is.nic.in/Manuals_Guideline/Oil_Refinery_Sector.pdf
	Cleaner production guidelines in petrochemical industries	200/150	http://www.gcpcenv.is.nic.in/Manuals_Guideline/Petrochemical_Industry.pdf
	Cleaner production guidelines in copper smelting industries	200/150	http://www.gcpcenv.is.nic.in/Manuals_Guideline/Copper_Smelting_Industires.pdf

Cover snapshot	Publication/ Product Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF file in ENVIS website (Kindly note that the PDF file should open without login prompt)
	Cleaner production guidelines in thermal power plant	200/150	http://www.gcpcenv.is.nic.in/Manuals_Guideline/Thermal_Power_Plants.pdf
	Cleaner production guidelines in leather industries	200/150	http://www.gcpcenv.is.nic.in/Manuals_Guideline/Leather_Industries.pdf
	Cleaner production guidelines in pharmaceuticals sector	200/150	http://www.gcpcenv.is.nic.in/Manuals_Guideline/Pharma_Sector.pdf

Cover snapshot	Publication/ Product Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF file in ENVIS website (Kindly note that the PDF file should open without login prompt)
	Cleaner production guidelines in zinc smelting industries	200/150	http://www.gcpcenv.is.nic.in/Manuals_Guideline/Zinc Smelting Industries.pdf
	Cleaner production guidelines in fertilizer manufacturing sector	200/150	http://www.gcpcenv.is.nic.in/Manuals_Guideline/Fertilizer Industry.pdf
	Development of industrial symbiosis	100/50	http://www.gcpcenv.is.nic.in/Books/Write up of Industrial Symbiosis for NIA publication.pdf

Cover snapshot	Publication/ Product Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF file in ENVIS website (Kindly note that the PDF file should open without login prompt)
	ENVIS brochure	100/50	http://www.gcpcenv.is.nic.in/Books/ENVIS_Information.pdf
	Eco Innovation Manual	100/50	http://www.gcpcenv.is.nic.in/Books/Eco_Innovation_in_Industry.pdf
	Cleaner Production Case Studies (23 Innovative Implementation of Cleaner Production in Gujarat)	1000/0	Uploaded on Website shortly

9.3 Information Products published/ released so far:

Publication / Product	Theme(s)/ Subject Area(s)	Year of Publication	URL of the PDF file in ENVIS website (Kindly note that the PDF file should open without login prompt)
Newsletter	<ul style="list-style-type: none"> ▪ Cleaner Production & Clean Technology Vol No.9 Issue No.1 Vol No.9 Issue No.2 Vol No.9 Issue No.3 Vol No.9 Issue No.4	2011	http://www.gpcenvis.nic.in/Newsletter2011.aspx
Poster	CP Implementation in <ul style="list-style-type: none"> ▪ Textile Sector ▪ Dairy Sector ▪ Stone Quarry 1. Process Intensification in Vinyl Suphone Industries	2011	-
Newsletter	<ul style="list-style-type: none"> ▪ Cleaner Production & Clean Technology Vol No.10 Issue No. 1 Vol No.10 Issue No. 2 Vol No.10 Issue No. 3 Vol No.10 Issue No. 4	2012	http://www.gpcenvis.nic.in/Newsletter2012.aspx
Book	<ul style="list-style-type: none"> ▪ Cleaner Production and its application in Industries 	2012	-
Poster	<ul style="list-style-type: none"> ▪ 20 Posters on Dairy Sector and Textile Sector ▪ 2 Posters on Cleaner Production and Clean Technology 	2012	-
Newsletter	<ul style="list-style-type: none"> ▪ Cleaner Production & Clean Technology Vol No.11 Issue No. 1 Vol No.11 Issue No. 2 Vol No.11 Issue No. 3 Vol No.11 Issue No. 4	2013	http://www.gpcenvis.nic.in/Newsletter.aspx
Leaflet	<ul style="list-style-type: none"> ▪ Cleaner Production Implementation in Dairy Sector (in English) ▪ Cleaner Production Implementation in Textile Sector (in English) ▪ Cleaner Production Implementation in Dairy 	2013	-

	<ul style="list-style-type: none"> ▪ Sector (in Gujarati) ▪ Cleaner Production Implementation in Textile Sector (in Gujarati) 		
Bibliography	<ul style="list-style-type: none"> ▪ Waste Paper Based Recycled Paper Mill 	2013	http://www.gcpcenvvis.nic.in/Books/wastepaperbasedrecyclepapermill.pdf
	<ul style="list-style-type: none"> ▪ Textile 	2013	http://www.gcpcenvvis.nic.in/Books/textilesector.pdf
Manual	<ul style="list-style-type: none"> ▪ Cleaner Production in Dairy Sector 	2014	http://www.gcpcenvvis.nic.in/Books/textilesector.pdf
Manual	<ul style="list-style-type: none"> ▪ Integration of Research to Industrial Application (Part –II) 	2013	http://gcpcenvvis.nic.in/Books/2015-abstract%20to%20industrial%20application.pdf
Manual	Cleaner Production Guidelines in Dyes & Dye Intermediates	2013-2014	http://www.gcpcenvvis.nic.in/Books/CP%20In%20Dyes%20n%20Dye%20Intermediate.pdf
Manual	Integration of Research to Industrial Application (part – I)	2013-2014	http://www.gcpcenvvis.nic.in/Books/abstract.pdf
Newsletter	<ul style="list-style-type: none"> ▪ Cleaner Production & Clean Technology Vol No.12 Issue No. 1 Vol No.12 Issue No. 2 Vol No.12 Issue No. 3 Vol No.12 Issue No. 4 	2014	http://www.gcpcenvvis.nic.in/Newsletter2014.aspx
9 Posters	<p>Cleaner Production in Vinyl Sulphone industry</p> <ul style="list-style-type: none"> • 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 	2014-2015	<p>http://www.gcpcenvvis.nic.in/Poster/CP%20in%20electroplating.jpg</p> <p>http://www.gcpcenvvis.nic.in/Poster/concept%20of%20RP.jpg</p> <p>http://www.gcpcenvvis.nic.in/Poster/life%20cycle%20thinking.jpg</p> <p>http://www.gcpcenvvis.nic.in/Poster/CP%20in%20dairy.jpg</p> <p>http://www.gcpcenvvis.nic.in/Poster/clean.jpg</p>
Leaflets	Environmental Friendly Techniques in Recycle Paper Sector of Gujarat	2014-2015	<p>http://www.gcpcenvvis.nic.in/Poster/CP%20in%20textile.jpg</p> <p>http://www.gcpcenvvis.nic.in/Poster/tips%20for%20energy.jpg</p> <p>http://www.gcpcenvvis.nic.in/Poster/spent%20acid%20management.jpg</p>

			20acid.jpg
Leaflets	Cleaner Production in Stone Crushing Unit	2014-2015	http://www.gcpcenvis.nic.in/Poster/Recycle%20paper%20sector.pdf
Book	Cleaner Production in Dairy Sector	2014-2015	http://www.gcpcenvis.nic.in/Poster/CP%20in%20Stone%20Crushing.pdf
Booklet	Plasma Gasification	Under process	http://www.gcpcenvis.nic.in/Books/CP%20in%20dairy%20sector.pdf
Booklet	Responsible Production in Industries (In Gujarati)	2014-2015	-
Pamphlet	Webpage of GCPC ENVIS Website	2014-2015	-
CDs	Dairy Sector • Textile Sector	2014-2015	-
Book	Abstracts on “Integration to Industrial Application	2014	http://www.gcpcenvis.nic.in/Books/abstract.pdf
Book	Cleaner Production and its applications to Industries	March 2014	-
Book	Cleaner Production Guidelines in Dyes & Dye Intermediates	March 2014	http://www.gcpcenvis.nic.in/Books/CPbook.pdf
Book	Integration of Research in Industrial Applications (Part-II)	March 2015	http://www.gcpcenvis.nic.in/Books/CP%20In%20Dyes%20n%20Dye%20Intermediate.pdf
Booklets	Textile Bibliography	March 2014	http://www.gcpcenvis.nic.in/Books/2015-abstract%20to%20industrial%20application.pdf
Booklets	Waste Paper Based Recycle Paper Bibliography	March 2014	http://www.gcpcenvis.nic.in/Books/textilesector.pdf
Leaflets	CP in Foundry Sector	March 2014	http://www.gcpcenvis.nic.in/Books/wastepaperbasedrecyclepapermill.pdf
Leaflets	CP in Electroplating Sector	March 2014	
Leaflets	CP in Textile Sector	March 2014	http://www.gcpcenvis.nic.in/Poster/CP%20in%20electroplating.jpg
Leaflets	CP in Waste Paper Sector	March 2014	http://www.gcpcenvis.nic.in/Poster/CP%20in%20textile.jpg
Leaflets	CP/CT in Textile Sector	March 2014	-
Leaflets	CP/CT in Waste Paper Sector	March 2014	-
Book	Cleaner Production in Dairy Sector	March 2014	-
Booklet	4R profitable road for sustainable development	March 2014	http://www.gcpcenvis.nic.in/Books/CP%20in%20dairy%20sector.pdf
Brochure	Publications of GCPC-ENVIS	March 2014	-

10. 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:	Not restructured
10.3	Frequency of updating Website 2015-16:	Weekly / Monthly
10.4	Subject-specific database updation (numeric/ others):	Weekly / Monthly
10.5	Publication uploaded/ updated on Website	Weekly / Monthly

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

<i>User engagement and interaction</i>	<i>FY 2015-16</i>	<i>FY 2014-15</i>	<i>FY 2013-14</i>
i. Total number of visits	42463	6584	5252
ii. Number of unique visits	9348	–	5999
iii. Reports Downloaded/Read	43	–	–
iv. Total Number of Queries received	563	375	79
v. Number of Queries responded	563	375	79
vi. Grade received		A	B

(Note: User engagement and interaction no. i, ii and iii are given for the month of 1st April 2015 to 15th February 2016 only)

12. Implementation of Annual Plan of Activities of the Financial Year (2015-16):

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
Centre's proposed activities for the year 2015-16		
1. To focus more on Cleaner Production Case Studies at National Level	Various sector wise case studies of Foundry, cement, ceramic, pulp & paper, Chemicals, Dyes & Dye Intermediate, Food & beverages, Rubber & Textile sectors covering energy conservation, water conservation, raw material conservation etc are uploaded in CP Archive.	
2. To upload more eBooks, Journals, Research Papers, Thesis / Reports and Manuals / Guidelines on Cleaner Production processes and technologies	Various books, journals, research papers, thesis/reports, manuals/guidelines on Cleaner Production Tools like Good House Keeping, raw material change, batter process control, energy and water conservation, solid and liquid waste reduction, recycle and reuse and production modification are uploaded in CP Archive.	
3. To upload animation videos in the kids corner	Informative and animated videos on Children's earth resources, plastic use, Save electricity, save water, pollution prevention and reduce, reuse and recycle practices for children have been uploaded in kids corner	
4. To upload current news and presentation related to CP/CT	Latest positive news on environment and initiatives taken by Government departments for environment conservation, new invention and best adopted cleaner production practices included in news section. Also, various presentations on Cleaner Production / Clean Technology have been uploaded.	
5. To conduct Promotional Programmes on Cleaner Production Concept & Clean Technology at Industrial Estates and Academic Institutions in Gujarat and in other	Cleaner Production Promotion Programmes is a routine activity for GCPC-ENVIS. As a part of this activity to disseminate the information on CP/CT, every year programs in major industrial estates like Vapi, Sarigam, Surat, Panoli, Ankleshwar, Jhagadia, Baroda, Halol, Narol, Odhav, Vatva, Naroda, Himmatnagar,	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

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
states	Kalol, Veraval has been organized. Also, GCPC-ENVIS approached to IDC/SPCBs of Rajasthan, Madhya Pradesh, and Maharashtra requesting to take support of the centre for the promotion of CP/CT in their state.	memorandum to the IDCs and SPCBs to take support from the GCPC-ENVIS and go for CP/CT in the industries of their states.
6. To publish quarterly newsletter for the year 2015-16	Regularly published quarterly newsletters for the year 2015-16	
7. To improvise website and database on Cleaner Production and Clean Technology in different industries and case studies on different sectors	Various innovative case studies on successful implementation of CP/CT of different industrial sectors have been uploaded in CP & CT database.	
8. To respond to queries received by the centre on different environmental issues	Queries related to CP & CT raised by Industries, Associations, Government Departments and Students received during Cleaner Production Promotional Programmes have been answered properly.	
9. To publish poster on Environment related issues and Cleaner Production in different sectors	Published posters on Environment and related issues and Cleaner Production in different sectors	
10. To prepare guidelines / manuals on Textile sector	Best practices on cleaner production implementation in textile by secondary data have been prepared and uploaded in Publication module	
11. To prepare guidelines / manuals on Pulp and Paper sector	Best practices on cleaner production implementation in Pulp & Paper by secondary data have been prepared and uploaded in Publication module	
12. To prepare a list of CP Centers around the Globe	List of centres working on Cleaner Production across the globe with their website link have been uploaded in CP & CT database.	
13. To include success stories of CP application in industries of all the countries	Success stories of CP implementation, CP potential in different industrial sectors across the globe have been incorporated in CP Archive.	

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
Suggestions for improvement by Processing Division, MoEF &CC		
A. Regular Activities: Web-based Environmental Information		
Collection and Compilation of Information and Data		
		-
Maintenance of ENVIS Website and User Engagement through it		
		-
Maintenance of ISBEID and Preparation of State of Environment (SoE) Reports		
Publications and Value-Addition		
Reaching-out/Networking Activities		
B. SPECIAL ACTIVITIES		

13.	New initiatives taken during the previous Financial Year (2015-16):	<p>Initiative No .1</p> <p>Created new menu of “ Bhuvan Portal” in GCPC-ENVIS website:</p> <ol style="list-style-type: none"> 1. Information of Industrial Estates in Gujarat developed by Gujarat Industrial Development Corporation <ul style="list-style-type: none"> ▶ DD Plan of all GIDC Industrial Estates in Gujarat
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		<p>► GIS maps all GIDC Industrial Estates in Gujarat</p> <p>2. Preliminary baseline assessment of Vapi Industrial Estate (GIDC), Gujarat which includes following details:</p> <ol style="list-style-type: none"> I. Basic Infrastructure (Proposed plan for improving road and parking facilities) II. Plot wise green area percentage III. Locational and Regional Settings, Vapi IV. Basic Infrastructure Mobility V. Basic Infrastructure facilities and Services in Vapi GIDC Industrial Estate (eg: fire station, service station, automobile service station etc.) VI. Water Supply System in Vapi GIDC Industrial Estate VII. Technical Infrastructure (eg: Administrative Building, Information Centre, Post Office, ATM etc.) Vapi GIDC Industrial Estate VIII. Environmental Infrastructure: Storm Water Management System in Vapi GIDC Industrial Estate IX. Environmental Infrastructure: Waste Water Management in Vapi GIDC Industrial Estate X. Environmental Infrastructure: Soild Waste Management in Vapi GIDC Industrial Estate XI. Environmental Infrastructure: Parks and Green Belts in Vapi GIDC Industrial Estate XII. Social Infrastructure such as: Hospital, Ambulance, Hotels/Restaurants, Public Toilets etc. in Vapi GIDC Industrial Estate XIII. Land use Map of Vapi GIDC Industrial Estate <p>Initiative No .2</p> <p>UNIDO has established Resource Efficient and Cleaner Production network (RECPnet) having 71 Member countries to provide a framework for regional and national activities on Cleaner Production. This includes review and assessment, tools development, capacity building and knowledge management on RECP at Global Level. GCPC is one of the members of RECPnet. Efforts are on to link ENVIS and RECPnet to disseminate the information of ENVIS to other countries.</p> <p>Initiative No .3</p> <p>Major source of generation of non- hazardous waste comes from household activates. As an initiative, GCPC – ENVIS has started conducting Awareness Programme to educate housewives from grass root level. The objective</p>
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		<p>of the program is to spread awareness about wastage at domestic level and how to implement the tools of cleaner production at household level to reduce the generation of waste at source.</p> <p>Two awareness programmes were conducted during the year 2015-16 inviting housewives/ school teachers / students etc. GCPC-ENVIS will regularly organize the programme on yearly basis.</p> <p>Initiative No .4</p> <p>The centre is arranging in-house presentation on various subject related to CP & CT, Waste Minimization and Environment Conservation on weekly basis to motivate staff members inviting experts from different organizations.</p> <p>Initiative No.5</p> <p>The centre is organizing Seminar on Cleaner Production and Clean Technology in Association with Chemical Technologists India (ACTI), in Ahmedabad. This event shall provide a platform to understand emerging clean technologies and cleaner production application in industries which helps to improve efficiencies, increase production and distribution with reduced carbon footprint. Various topics on cleaner production and clean technology will be covered under this seminar. It will also provide a platform for the students to share implementation of best practices, experiences and lessons learned on cleaner production.</p>
3.	<p>Date of most recent physical verification by the Ministry:</p>	<ul style="list-style-type: none"> ▪ The National Interaction-cum-Evaluation Workshop for ENVIS Centers was held on 17th to 20th February 2016 at New Delhi organized by ENVIS, MoEFCC, GoI. Officials from GCPC-ENVIS participated and presented the activities and achievements of GCPC-ENVIS Centre for the year 2015-16. ▪ Shri. Abhay Kumar, Deputy Economic Advisor, Ministry of Environment, Forest and Climate Change, Government of India visited Gujarat Cleaner Production Centre – ENVIS Centre on Cleaner Production / Clean Technology supported by Ministry of Environment, Forest and Climate Change, Government of India on 5th December, 2015. During his visit GCPC-ENVIS team lead by Dr. Bharat Jain, Member Secretary, GCPC &

		Coordinator ENVIS made a detailed presentation on Activities & Achievements of Gujarat Cleaner Production Centre as an thematic ENVIS Centre. GCPC-ENVIS team also presented the 'Annual Proposed Action Plan – 2015-16' for ENVIS. Shri. Abhay Kumar, was pleased with the activities of GCPCENVIS and boosted them by recognizing their good practices as an ENVIS Centre. GCPC-ENVIS team thanked Shri. Abhay Kumar, for accepting invitation to visit GCPC-ENVIS centre. Shri. Abhay Kumar congratulated GCPC-ENVIS team for achieving 'A' grade in ENVIS Performance Evaluation for the year 2014-15.
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4. Status of existing hardware:

	Hardware item	Specification	Sanction Order with Date	Date of procurement
Procured from ENVIS Grant 2014-15	C.P.U	Inlet Pentium 4.1.7 GHz processor (not working)	25/02/2003 No.12(1)/WB/2002-ENVIS(PT) For the Year (2003-2004)	27/06/2003
	Monitor	HCL Infinity pro BI-Monitor i/o 15" HCM 780 Monitor (not working)	25/02/2003 No.12(1)/WB/2002-ENVIS(PT) For the Year (2003-2004)	6/11/2003
	Scanner	HPSJ 2400C (Not Working)	25/02/2003 No.12(1)/WB/2002-ENVIS(PT) For the Year (2003-2004)	6/11/2003
	Inkjet Printer	HP DJ 3550 (Not working)	25/02/2003 No.12(1)/WB/2002-ENVIS(PT) For the Year (2003-2004)	6/11/2003
	All in one printer	HP Laserjet 3030 (Not Working)	02/03/2005 No.11/30/2004-EI For the Year (2004-2005)	29/03/2005
	Computer	HP Model (working)	02/03/2005 No.11/30/2004-EI For the Year (2004-2005)	29/03/2005
	Printer Laser jet	Laserjet 1010 (working)	02/03/2005 No.11/30/2004-EI For the Year (2004-2005)	29/03/2005
	Computer Desktop (2)	HP/3030 Intel Core i3 (working)	30/12/2013 No.11/30/2004-EI For the Year (2013-2014)	18/03/2014

	All in one Printer	Konica Milolta, Model No. Bizhub-215(working)	30/12/2013 No.11/30/2004-EI For the Year (2013-2014)	28/03/2014
Provided by Host Institute	Computer Desktop	HP Model (working)		
	Printer	HP Laserjet P 1007 (working)		

Hardware Procured from ENVIS grant	Hardware provided by the host department, Forests, Environment & Wildlife Management Department, Government of Sikkim

5. Status of utilization of grant in current year (2015-16) and reasons for shortfalls, if any:

	Head of Expenditure	Sanctioned amount (Rs.)	Actual Expenditure (Rs.)	Reasons for Shortfall/ Excess (if any)
Recurring Annual	Manpower			
	Databases, etc.			
	Travel & Training			
Non-Recurring (SoER)	Preparation of State of Environment Report	-	-	

(Kindly note that the utilization of grant for the year 2015-16 required in above table will be submitted after the getting account audited by Auditors.)

6. Issues/ hurdles faced in undertaking ENVIS activities:

)	CP is an emerging concept hence it is difficult to convince industries to adopt this concept. Only few industries are willing to adopt CP/CT. Therefore, the primary data of CP/CT implementation generated / available is very less.
)	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

	<p>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.</p> <p>) Industries of different sectors approaches GCPC for CP assessment, wherein CP tools are generated after walk through and detailed CP assessment of the industry. After the implementation of these CP options, the annual savings are calculated. Therefore, this is a time consuming exercise and the generation of data in GCPC-ENVIS and its documentation takes time. So, the publication of the case study is also dependent upon time and availability of data.</p>
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Annex**Status of data entry in ISBEID: (For State/ UT ENVIS Centres):**

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
I. Adminis- trative	1. General	Name				
		No. of Districts (with name)				
		No. of Mandals/ Tahsils/ Taluks (with name)				
		No. of Blocks (with name)				
		No. of Municipalities (with name)				
		No. of Panchayats				
		No. of Cities with million plus population (with name)				
		No. of Tribal Settlements				
		Elevation above mean sea level (Maximum)				
		Elevation above mean sea level (Minimum)				
		Total geographical area				
		GDP of the state (Sector wise)				
		- Primary				
		- Secondary				
	- Tertiary					
	2. Socio Economics	No. of BPL household in millions				
		% of Household below poverty line				
	3. Climate	Average mean monthly temperature (Max.)				
		Average mean monthly temperature (Min.)				
		Total annual Rainfall				
		Relative Humidity				
	4. Demography	Population (for last 4 decades - 1961 - 71 - 81- 91- 2001)				
		Total Population				
		Males Population				
		Females Population				
		Density				
		Area in				
		No. of females/thousand males (sex ratio)				
		% of Literacy				
		% of population attending school				
		Crude Birth Rate (Nos. per 1000 population)				
	Crude Death Rate (Nos. per 1000					

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		population)				
II. Infra-structure	1. Housing	Permanent				
		Semi- Permanent				
		Temporary				
		Average Household Size (Persons per HH)				
	2. Medical and Health Service	No. of Government Hospitals				
		No. of Registered private hospitals/ nursing homes				
	3. Transport	No. of Railway Stations				
		Length of Railway Lines				
		Length of National Highways				
		Length of State Highways				
		Length of other roads				
		No. of Domestic Airports				
		No. of international Airports				
	III. Energy	1. Non-Renewable	Coal power generation			
Installed Capacity						
Gas Power generation						
Installed Capacity						
Oil based power generation						
Installed Capacity						
Atomic power generation						
Installed Capacity						
Power from National Grid						
Installed Capacity						
2. Renewable		Hydel power generation				
		Installed Capacity				
		Windmill power generation				
		Installed Capacity				
		Solar photovoltaic power generation				
		Installed Capacity				
		Biogas power generation				
		Installed Capacity				
		Other biomass power generation				
Installed Capacity						
3. Electricity Consumption		Industrial and Commercial				
		Agriculture				
		Domestic				
		Others				
4. Energy		LPG				

Module	Sub-Module	Fields	Period for which data updated				
			State-level		District-level		
			Annual	Monthly	Annual	Monthly	
	Consumption	Other Petroleum Products					
		Coal					
		Natural Gas					
		Other					
IV. Agriculture	1. Agriculture Area Classification	Total agricultural area					
		Area under non-agriculture use					
		Barren and uncultivable land					
		Permanent pasture / grazing land					
		Net irrigated land					
		New Sown area					
		Plantation crops					
		Fallow					
		2. Agriculture Production	Total production of crops				
			Yield of Kharif Crops %				
			Yield of Rabi Crops %				
			Yield of other crops %				
		3. Crop Production (plantation crops) (in million tons per annum)	Name				
			Production				
			Rice				
			Sowing Area				
			Production				
			Wheat				
			Sowing Area				
			Production				
			Pulses				
			Sowing Area				
			Production				
			Total food grains				
			Sowing Area				
			Production				
			Cotton				
			Sowing Area				
			Production				
			Jute & mesta				
			Sowing Area				
			Production				
			Sugarcane				
			Sowing Area				
			Production				
			Tobacco				

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Sowing Area				
		Production				
		Oil Seeds				
		Sowing Area				
		Production				
		Cereals				
		Sowing				
		Production				
		Others				
		Sowing Area				
	Production					
	4. Fertilizer Consumption	Nitrogen				
		Phosphate				
		Potash				
		Others				
	5. Pesticide Consumption	Insecticides				
		Fungicides				
		Weedicides				
		Rodenticide				
		Fumigants				
	V. Industries	1. Category of Industry	Total No. of Large Scale Industries			
Total No. of Medium Scale Industries						
Total No. of Small scale Industries						
Total No. of Red Category Industries						
Total No. of Orange Category Industries						
Total No. of Green Category Industries						
2. Mining & Quarrying		Iron				
		Copper				
		Lead				
		Zinc				
		Nickel				
		Manganese				
		Bauxite				
		Coal				
Other (Chromite)						
Name of the Mineral Resources						
VI. Tourism & Heritage	1. Tourism & Heritage	Name and location of Heritage sites				
		Name and location of Religious places/centres				

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
Heritage		Name and location Archaeological monuments/sites				
		Name and location of Scenic Areas				
		Name and location of Tourist Resorts				
VII. Natural Resource s	1. Land Use Classification	Total Geographical Area				
		Forest				
		Non-Agriculture use				
		Barren and uncultivable land				
		Permanent pastures and other grazing land				
		Miscellaneous tree crops and groves				
		Cultivable wasteland				
		Fallow land other than current fallow				
		Current fallow Net area sown				
		Gross cropped area				
		Area sown more than once				
		Net irrigated area				
		Gross irrigated area				
	Others					
	2. Land Degradation	Degraded land area				
		Degraded Irrigated land				
		Area affected by shifting cultivation				
		Deforestation rate				
		Total salt affected land				
		Salinization rate				
		Area effected by desertification				
	3. Waste Land	Gullied & or Ravenous Land %				
		Upland with or without Scrub %				
		Water Logged & marshy Land %				
		land affected by Salinity/Alkalinity Coastal/ Inland %				
		Underutilized Degraded Notified Forest Land %				
		Shifting Cultivation Area %				
		Degraded Land under Plantation Crops %				
		Degraded Pastures/Grazing Land %				
		Mining Industrial Wastelands %				
		Sands - Deserted Coastal %				
		Steep Slopping Area %				
		Barren Rocky/Stony Waste/Sheet Rocky				

Module	Sub-Module	Fields	Period for which data updated				
			State-level		District-level		
			Annual	Monthly	Annual	Monthly	
		Area %					
		Snow Covered and/or Glacial Area %					
	4. Types of Wetlands	Names of wetlands of national importance					
		Names of wetlands of international importance (Ramsar site etc.)					
		Coastal /Estuaries					
		Fresh water Lakes					
		Tanks/Ponds/Reservoirs/Dams					
		Marshes (Tidal/Non-Tidal)					
		Swamps					
		Mangroves					
		Flood Plains					
		Total Area of Wetland					
		Others					
	5. Soil Types	Black Soil					
		Red Soil					
		Desert Soil					
		Grey and Brown Soil					
		Saline & Alkaline Soil					
		Laterite Soil					
		Alluvial Soil					
		Mountain Soil					
		Mix Red & Black Soil					
		Peaty Soil					
	VIII. Forest Resource	1. Distribution of Forest Cover	Dense Forest				
			Open Forests				
			Mangroves				
			Trees outside forests				
			Numbers				
			Area in				
			Non Forest				
2. Recorded Forest		Reserved Forest					
		Protected Forest					
		Unclassed Forest					
3. Mining in Forests		Bauxite					
		Chromite					
		Copper					
		Iron					
		Manganese					
		Others					

Module	Sub-Module	Fields	Period for which data updated				
			State-level		District-level		
			Annual	Monthly	Annual	Monthly	
	4. Actual Forest Cover by Density Class	Dense Forest (Crown density Cover Area above 40%) (in ha)					
		Open Forest (Crown density 10- 40% (in ha)					
		Mangrove (in ha)					
	5. Forest Produce	Timber poles					
		Fuel wood					
		Pulp & match Wood					
		Sal seeds					
		Kandu/Bedi leaves					
		Gums & Resins					
		Cane/Rattan & Bamboo					
		Grass /Fodder					
		Drugs/Tannins					
		Spices					
		Lac					
	Others						
	6. Joint Forest Management Committee	Name of District					
		No. of JFMC					
	IX. Water Resource	1. Source of Water	Name of River				
			Total Length				
Catchment Area							
Seasonality (Perennial/Seasonal)							
Canals (Length)							
Reservoirs							
Tanks, Lakes & Ponds							
Brackish Water							
Government Owned Canals							
Private Canals							
Tanks							
Wells							
		Tube Wells					
X. Ground Water Resource	1. Status of Ground Water	Total Replenishable Ground Water Resource					
		Provision for industrial/ domestic/ other uses					
		Available Ground Water Resource					
		Net Draft					
		Balance Ground Water					
		Level of Ground Water Development (%)					

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Utilization Ground Water Resource for irrigation in Net terms				
		Over Exploited				
		Critical Area				
		Gross Draft Estimated on Pro-rata basis				
	2. Categorization of Water Level	Pre-Monsoon average depth to water level				
		Post Monsoon average depth to water level				
		No. of Over Exploited Area				
		total Ground Water Resource				
	3. Use of Ground Water	Quantity of ground water for irrigation				
		Available ground water for irrigation				
		Utilizable ground water for irrigation				
		Net ground water draft				
	XI. Ecology	1. Ecological Areas	Name of Biogeographical Zones			
2. Ecology Type		Name of National Parks				
		Name of Wildlife Sanctuaries				
		Name of Bird Sanctuaries				
		Name of Tiger Reserves				
		Name of Elephant Reserves				
		Name of Biosphere Reserves				
		Name of Protected Mangroves area (Private & Public)				
3. Botanical Gardens		Name of Botanical Garden				
		Area of Botanical Garden				
		Location				
		Uniqueness				
4. Zoological Parks		Name of Zoological Park				
		Area of Zoological Park				
		Location				
		Uniqueness				
5. Physiographical Features		Mountain Name				
		Height (Meter)				

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
XII. Sanitation	1. Hygiene & Sanitation	No. of Town covered				
		No. of Town not covered				
		Total No. of treatment plants				
	2. Air Borne Disease	Type of Disease				
		Name of Disease				
		No. of Deaths				
	3. Water Borne Disease	Type of Disease				
		Name of Disease				
		No. of Deaths				
XIII. Water Pollution	1.	River Name				
		Location				
		BOD				
		COD				
		Ph				
		Total Coliform				
		Lake Name				
		Location				
		BOD				
		COD				
		Ph				
		Total Coliform				
XIV. Air Pollution	1. Industrial	SO ₂				
		NO _x				
		Suspended Particulate Matter (SPM)				
		Respirable Suspended Particulate Matter (RSPM)				
	2. Residential	SO ₂				
		NO _x				
		Suspended Particulate Matter (SPM)				
		Respirable Suspended Particulate Matter (RSPM)				
3. Vehicular Pollution	No. of Vehicles					
	Type of Vehicles					
XV. Bio-diversity	1. Flora	Total Species (RET)				
		Redbook species No.				
	2. Fauna	Total Species (RET)				
		Redbook species No.				
XVI. Waste	1. Type of Waste	Hazardous waste (HW) in t/a				
		E-waste thereof in t/a				

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Biomedical waste (BMW)				
		Municipal Solid Waste (MSW)				
		Plastic Waste				
		Waste Water				
		Treatment/Disposal (for all 5)				
	2. Clean Technology	Type of Industries				
		Name of technology used				
	3. Effluent Treatment Plant/CEPT	Name of District				
		No. of Plants				
	XVII. Disaster	1. Disaster	Type of Disaster			
Year						
Affected districts in nos.						
Population affected (in millions)						
Damage in crore INR						

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