



# ENVIS Center on Hazardous Waste



## Annual Progress Report on Activities of ENVIS Centres (2014-15)

1	Name of Host Organization:	CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur
2	Assigned Subject Area:	Hazardous waste
3	Date/Month/Year of establishment of ENVIS Centre:	1993
4	Name and designation of ENVIS Coordinator:	Prakash Kumbhare, ENVIS Coordinator, CSIR-NEERI / Principal Scientist & Head, R&D Planning Division, CSIR-NEERI
5	Current ENVIS Staff Structure:	
	Name	Position held
	Mrs. Snehal Deshmukh	Project Assistant Level - III
	Mr. Pranay Bankar	Project Assistant -Level II
	Mr. Firoz Baksh	Project Assistant- Level I
6	Members of Scientific Advisory Board:	
	Er. K.P. Nyati, Environmental Expert & Former Head, Environmental Management Division, Confederation of Indian Industry (CII), New Delhi	
	Er. N.K. Verma, Ex. Additional Director, Central Pollution Control Board (CPCB), Delhi	
	Dr. Tapan Chakrabarti, Chair Professor, Visvesvaraya National Institute of Technology, Nagpur	
	Dr. Satish, R. Wate, Director, CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur	
	Suggestions are always sought from the members to improve contents of the newsletters and website. Last meeting was held on 13.9.2013 when they had come to the Institute to take part in one of the workshops organized by CSIR-NEERI	
7	Mandate of the Host Organization (CSIR-NEERI)	Mandate of the ENVIS-NEERI
	Research and Development in Environmental Science & Engineering and to provide sustainable technological solutions to environmental problems of government, industry, and the society, especially the 800 million under privileged people of India. The R&D performance	Systematically collect, compile and disseminate information on "Hazardous Waste and Its Management" useful to various industries / researchers / policy makers / academicians / environmentalists / Universities / Pollution Control Boards / NGOs, etc.  The activities include:

<p>indicators of the Institute are: Research Publications in high impact factor SCI journals, Patents, ECF generation, R&amp;D Projects, Technology development &amp; transfer, and participation of scientists in societal missions and decision making in government and industry</p>	<ul style="list-style-type: none"> <li>• Collection and compilation of national as well as international information on various issues related to hazardous waste management</li> <li>• Development of information databases and strengthening of information resources in the field of hazardous waste management</li> <li>• Publications of reports covering various aspects of hazardous waste management to ensure sustainable development</li> <li>• Development of a website on hazardous waste management</li> </ul>
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## 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/year of last data point</i> )	Source(s) of data	Online Availability ( <i>Whether uploaded on ENVIS Website</i> )
Bioremediation for hazardous waste management	<ul style="list-style-type: none"> <li>- Patents database on bioremediation</li> <li>- Abstracts database on bioremediation</li> <li>- Business / commercial database on bioremediation</li> <li>- Technical guidelines on bioremediation for hazardous waste management</li> </ul>	Descriptive	Monthly (30 March 2015)	Patent citations, high impact factor national and international journals, national and international magazines, websites, national and international environmental regulatory authorities	Yes (neerivis.nic.in)
Database on status of technologies for hazardous waste management	Information on processes/know-how/ technologies being used by industries for hazardous waste management and their environmental impacts	Descriptive	Monthly (Data for the period 2000-2015) (30 March 2015)	High impact factor national and international journals	Yes (neerivis.nic.in)
Use of hazardous wastes in industries as a raw material	Information on hazardous wastes being used as a raw material, being recycled / reused	Descriptive	Monthly (Data for the period 2000-2015) (30 March 2015)	High impact factor national and international journals	Yes (neerivis.nic.in)
Abstract database	Abstracts of Research Papers related to hazardous waste management	Descriptive	Monthly (Data for the period 2000-2015) (30 March 2015)	High impact factor national and international journals	Yes (neerivis.nic.in)
R&D database	Breakthrough S&T achievements in the	Descriptive	Quarterly (Data for the	High impact factor national and	Yes (neerivis.nic.in)

	area of hazardous waste management		period 2000-2015) (30 March 2015)	international journals	in)
News database	Current legal and scientific affairs related to hazardous waste management	Descriptive	Quarterly (Data for the period 2000-2015) (30 March 2015)	High impact factor national and international journals	Yes (neerivis.nic.in)

## 8.2 Catalogue of Numeric and Time-series Databases compiled by the Centre till date: **NIL**

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)
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## 8.3 New Databases developed during the previous Financial Year (2014-15):

### 8.3.1 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)
Hazardous waste treatment and disposal facilities in India	State-wise information on treatment and disposal facilities in India	Graphical / geospatial	Monthly (30 March 2015)	National regulatory authorities	Yes
Common Effluent Treatment Plants (CETPs) in India	State / District wise information on Common Effluent Treatment Plants (CETPs) available to treat industrial waste water	Graphical / Geospatial	Monthly (30 March 2015)	National regulatory authorities	Yes
Health impacts of hazardous wastes	This database addresses the potential hazards of exposure to hazardous wastes	Descriptive	Monthly (30 march 2015)	High impact factor national and international journals	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)
Hazardous waste generation in India	State-wise information on industries generating hazardous waste, including recyclable/incinerable hazardous	2010-2015 (Monthly)	National regulatory authorities	Yes

	waste (23 states of India)		
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#### 8.4 Status of data entry in ISBEID: (For State/ UT ENVIS Centres) – As in Annex

### 9. Information/ Knowledge Products:

#### 9.1 ENVIS Newsletters published during the previous Financial Year (2014-15):

Quarter/ Volume/ Issue/ Theme	Main Articles	Number of copies printed and circulated
Vol.9 No.4-6, April – June 2014	Current R&D Achievements/ Rules /Regulations / Policies/ Abstracts with regard to hazardous waste and its management (National and International)	300, to all State Pollution Control Boards/ Industries/NGOs/Environment and Forest Departments/IITs/Universities
Vol.9 No.7-9, July– September 2014	Current R&D Achievements/ Rules /Regulations / Policies/ Abstracts with regard to hazardous waste and its management (National and International)	300, to all State Pollution Control Boards/ Industries/NGOs/Environment and Forest Departments/IITs/Universities
Vol.9 No.10-12, October– December 2014	Current R&D Achievements/ Rules /Regulations / Policies/ Abstracts with regard to hazardous waste and its management (National and International)	300, to all State Pollution Control Boards/ Industries/NGOs/Environment and Forest Departments/IITs/Universities
Vol.10 No.1-3, January– March 2015	‘Special Issue on Fertilizer Industry’ Current R&D Achievements/ Rules /Regulations / Policies/ Abstracts with regard to hazardous waste and its management in fertilizer industry (National and International)	300, to all State Pollution Control Boards/ Industries/NGOs/Environment and Forest Departments/IITs/Universities

#### 9.2 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
<b>Compiled by NEERI-ENVIS</b>		
Status report on hazardous waste management in India	Technological and legal framework for hazardous waste management in India	Available on the neerienvis website
<b>Compiled from other sources</b>		
Protocol for performance evaluation and monitoring of the common hazardous waste treatment storage and disposal facilities including common hazardous waste incinerators	Review of hazardous waste management facilities	Available on the neerienvis website
Technical EIA guidance manual on chemical fertilizers	For enhancing functional efficiency and effectiveness in the environmental clearance process for stakeholders with regard to hazardous waste management of chemical fertilizer industries	Available on the neerienvis website
Inventory of hazardous materials in tannery and pulp industries in Nigeria	Hazardous waste management in tannery and pulp industries	Available on the neerienvis website
National Hazardous Waste	Hazardous Waste Management in Ireland	Available on the

Management Plan 2008-2012		neerivis website
Tar sands pipelines safety risks	Impacts of tar sands and safety from tar sands	Available on the neerivis website
Hazardous waste management & Basel Convention	Hazardous waste management in compliance with Basel Convention	Available on the neerivis website
Inventorisation and characterisation of hazardous waste categories in Andhra Pradesh: preliminary study report	Hazardous waste management in Andhra Pradesh	Available on the neerivis website
Toxic and hazardous waste management training guide	Assessment of hazardous waste management practices in Philippines	Available on the neerivis website
Hazardous waste policy study for Nepal	Hazardous waste management policy in Nepal	Available on the neerivis website
Hazardous waste management in ARAB Countries	Hazardous waste management in ARAB Countries	Available on the neerivis website
Feasibility study for hazardous waste management in Egypt	Hazardous waste management in Egypt	Available on the neerivis website
Hazardous waste management in Bangladesh: A country inventory	Hazardous waste management in Bangladesh	Available on the neerivis website
E-Books	Best practices, technologies and legal framework on hazardous waste management	Available on the neerivis website
Pamphlets	Dos and don'ts on hazardous wastes	Available on the neerivis website
Kids Corner	Information on possible health effects of chemicals	Available on the neerivis website

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

1.1.	URL:	<a href="http://www.neerienvis.nic.in">www.neerienvis.nic.in</a>
1.2.	Status of restructuring of Website:	Restructured on (20/03/2013)
1.3.	Frequency of updating Website:	Weekly / Fortnightly / Monthly
1.4.	Subject-specific database updation (numeric/ others):	Weekly / Fortnightly / Monthly Details are given in 7.1, 7.3.1 and 7.3.2
1.5.	Publication uploaded/ updated on Website:	Last (fourth) issue of NEERI-ENVIS newsletter (January – March 2015) was uploaded on 5 March 2015

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

1.1	Total number of visits on Website:	1094 (Source: Google Analytics)
1.2	Number of unique visits on Website:	1023 (Source: Google Analytics) – indicating new users
1.3	Number of reports downloaded/ read by stakeholders:	Not able to track out the record on Google Analytics, however, NEERI-ENVIS has provided 15 different reports to 57 stakeholders through e-mail

(Graphs attached, source: Google Analytics)

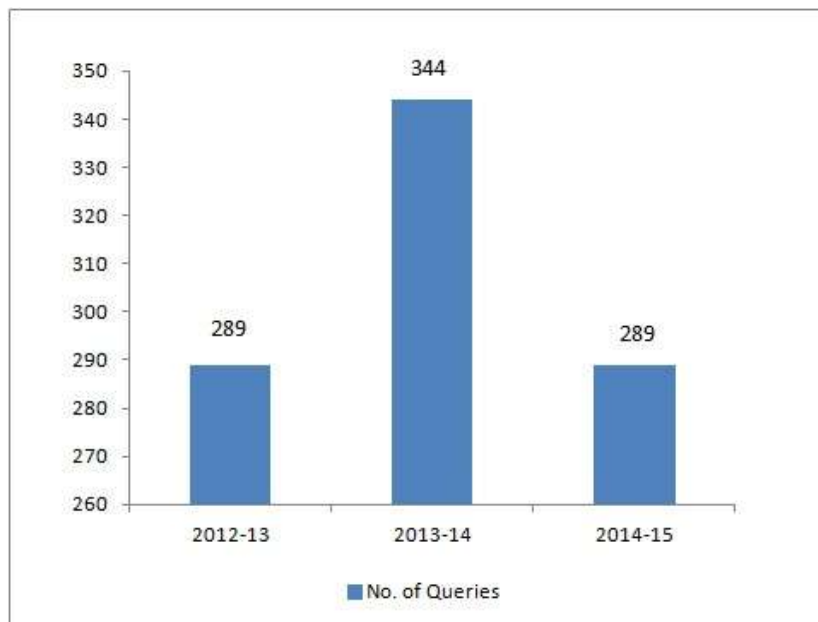
For more details please refer Annexure-I in the end.

12. Query-Answer Statistics:

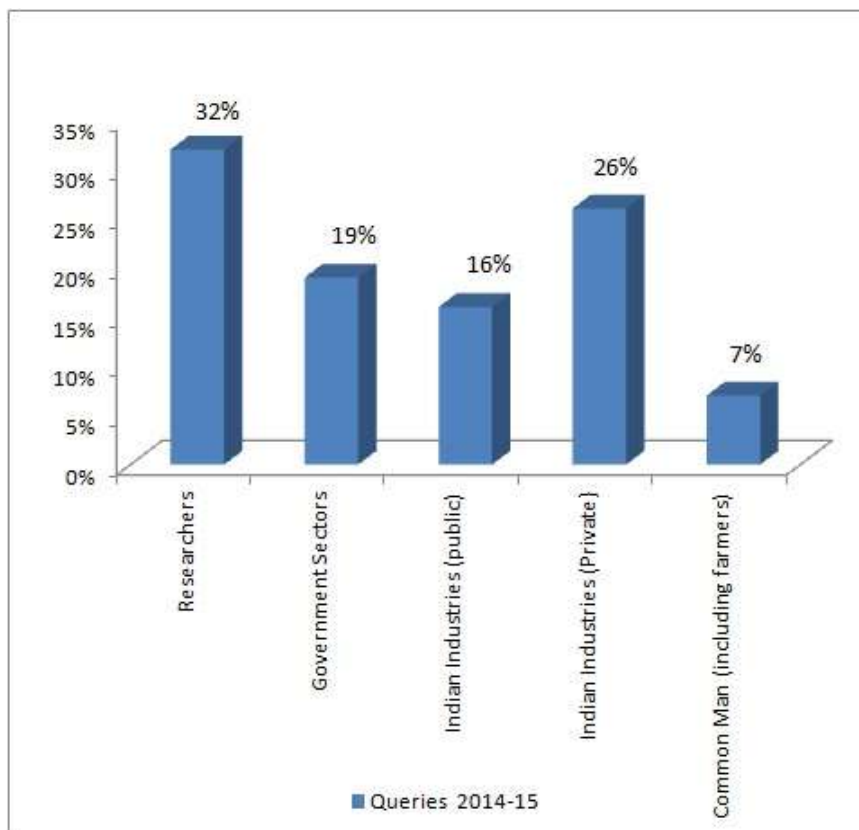
Mode of Query Receipt	Number of Queries Received	Number of Queries Responded	Reasons for shortfalls, if any, and action taken to rectify
Online	102	79	23 queries were not related to hazardous waste management, so redirected to contact the concerned authorities
Email	121	89	32 queries were not related to hazardous waste management, so redirected to contact the concerned authorities
Postal	47	34	13 queries were not related to hazardous waste management, so redirected to contact the concerned authorities
Physical	19	14	5 queries were not related to hazardous waste management, so redirected to contact the concerned authorities

Total number of queries received in 2014-15: **289**

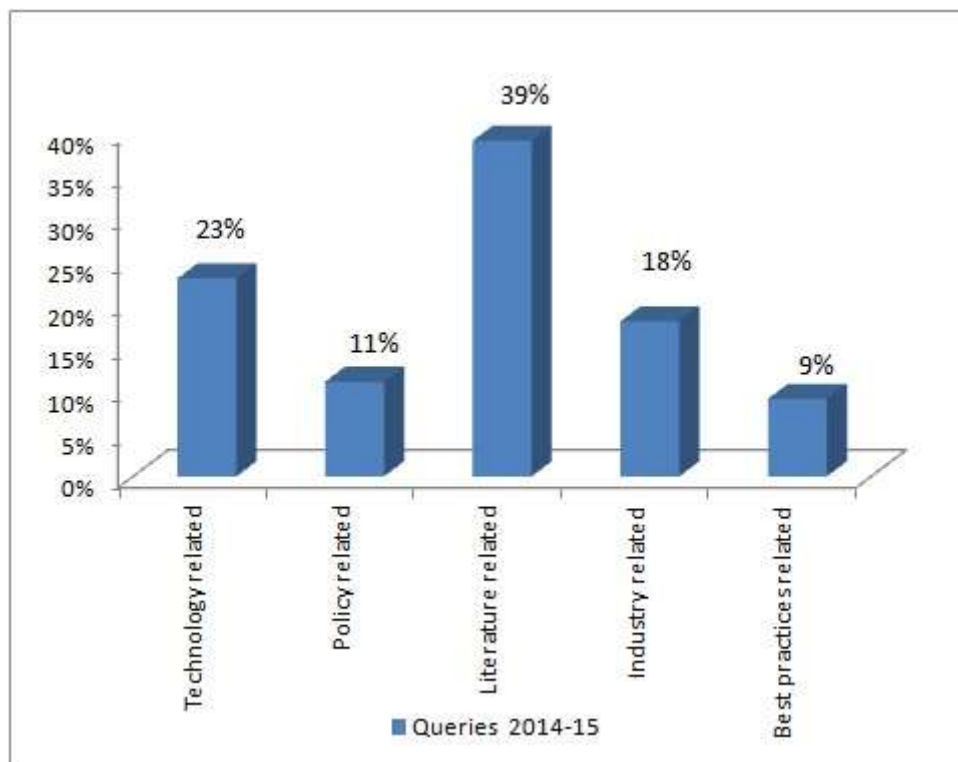
**Queries received during last three years:**



**In 2014-15, queries were from:**



In 2014-15, queries were related to:



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

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefor
Centre's proposed activities 2014-15		
Development of enviro-legal framework for sustainable development: national and international legislations, gap analysis, case studies (for various industries)	The related information has been compiled in respect of 12 developing countries and placed on the ENVIS-NEERI website. Still the compilation work is in progress with respect to other countries. Data analysis will be done after complete compilation to study gap analysis	-
Database development on Production of hazardous wastes by region and industry Database on import and dumping of hazardous wastes Socioeconomic impacts of hazardous wastes	These databases were proposed to develop in 2014-15, but while compilation it was found that the information is not easily available, so more focus was given to develop databases on state-wise hazardous waste generation and health impacts due to hazardous wastes	As the information is being compiled from high impact factor journals, the databases as proposed for 2014-15 could not be formed of the desired size
Education to farmers affected due to hazardous waste being produced by	Pamphlets are placed on NEERI-ENVIS website	Fund received on 31 <sup>st</sup> March 2015



industries, through distribution of pamphlets related to Dos and Don'ts with regard to hazardous waste impacts minimization		
Quarterly ENVIS Newsletters highlighting contemporary issues on hazardous waste and its management; particularly development of various technologies, current R&D achievements, enactments and policy related issues	Brought out four quarterly ENVIS-NEERI Newsletters, including one special issue, as mentioned in the point 8.1	-
Development of Databases and strengthening of information resources in the field of hazardous waste management.	The information furnished vide 7.1, 7.3.1, 7.3.2, 8.1 and 8.2 has been disseminated to strengthen information resources in the area of hazardous waste management	-
Collection and compilation of national as well as international information on various issues related to hazardous waste management	The information furnished vide the points 7 and 8	-

14.	New initiatives taken during the previous Financial Year (2014-15):	<ul style="list-style-type: none"> <li>• Database development on: State-wise hazardous waste generation in India Health impacts of hazardous wastes District / State-wise Common Effluent Treatment Plants in India Hazardous Waste Treatment and Disposal Facilities in India</li> <li>• Compilation of 16 reports on hazardous waste management</li> <li>• Case studies with reference to Hazardous Waste (Management, Handling &amp; Transboundary Movement) Rules: Scientific and Policy related studies)</li> <li>• Kids Corner</li> <li>• E-Books on hazardous waste management</li> <li>• Compilation of legislations on hazardous waste management in developing countries</li> <li>• January – March 2015 issue of NEERI-ENVIS Newsletter was brought out as a “Special Issue on Fertilizer Industry”</li> <li>• ENVIS Regional Workshop (Western Region) was held at CSIR-NEERI, Nagpur on 16-17 February 2015, which was coordinated by NEERI-ENVIS</li> </ul>
15	Date of most recent physical verification by the Ministry:	17.2.2015

16. Issues/ hurdles faced in undertaking ENVIS activities: **NIL**

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**Data related to visits on the NEERI-ENVIS website during 2014-15**

(Source: Google Analytics)

Country	Sessions	% Sessions
1.  India	393	32.94%
2.  United States	252	21.12%
3. (not set)	236	19.78%
4.  China	47	3.94%
5.  Japan	27	2.26%
6.  South Korea	20	1.68%
7.  France	19	1.59%
8.  Germany	17	1.42%
9.  United Kingdom	14	1.17%
10.  Brazil	11	0.92%

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Device Category	Acquisition			Behavior			Conversions		
	Sessions	% New Sessions	New Users	Bounce Rate	Pages / Session	Avg. Session Duration	Goal Conversion Rate	Goal Completions	Goal Value
	<b>1,193</b> <small>% of Total: 100.00% (1,193)</small>	<b>93.46%</b> <small>Avg for View: 88.70% (3,059%)</small>	<b>1,115</b> <small>% of Total: 103.05% (1,002)</small>	<b>84.66%</b> <small>Avg for View: 84.89% (0.00%)</small>	<b>1.41</b> <small>Avg for View: 1.41 (0.00%)</small>	<b>00:00:47</b> <small>Avg for View: 00:00:47 (0.00%)</small>	<b>0.00%</b> <small>Avg for View: 0.00% (0.00%)</small>	<b>0</b> <small>% of Total: 0.00% (0)</small>	<b>\$0.00</b> <small>% of Total: 0.00% (\$0.00)</small>
1. desktop	<b>1,095</b> (91.79%)	93.88%	1,028 (92.20%)	85.02%	1.38	00:00:43	0.00%	0 (0.00%)	\$0.00 (0.00%)
2. mobile	<b>94</b> (7.88%)	88.30%	83 (7.44%)	81.91%	1.77	00:01:31	0.00%	0 (0.00%)	\$0.00 (0.00%)
3. tablet	<b>4</b> (0.34%)	100.00%	4 (0.36%)	50.00%	2.25	00:02:51	0.00%	0 (0.00%)	\$0.00 (0.00%)

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