

Evaluative Report of the Department

1. Name of the Department
Department of Indira Gandhi Centre for Human Ecology, Environmental and Population Studies
2. Year of establishment
1984
3. Is the Department part of a School/Faculty of the university?
Yes, Department of Indira Gandhi Centre for Human Ecology, Environmental and Population Studies is a part of Faculty of Science
4. Names of programmes offered (UG, PG, M.Phil, Ph.D., Integrated Masters; Integrated Ph.D., D. Sc, D. Litt, etc.)
Department offers UG (Pass) courses in Environmental Science at constituent colleges of this university while PG and Ph. D. programmes are being offered by Department itself.
UG B.Sc. (Pass course)
M. Sc. Environmental Science
Post P.G. Diploma Human Ecology, Environmental and Population Studies &
Ph. D. Environmental Science
5. Interdisciplinary programmes and departments involved:
Faculty members are involved in various programmes organized by science and social science departments.
6. Courses in collaboration with other universities, industries, foreign institutions, etc.
No programme is designed under collaboration with other universities, industries, foreign institutions.
7. Details of programmes discontinued, if any, with reasons
No programme is discontinued in recent times.
8. Examination System: Annual/ Semester/ Trimester/ Choice Based Credit System
University has adopted annual examination scheme for UG exams in Environmental Science and semester system with Choice Based Credit System for PG exams. Department is also running one semester Pre Ph.D. course work in environmental science.
9. Participation of the department in the courses offered by other departments
Faculty members actively participate in various programmes organized by science and social science departments.

10. Number of teaching posts sanctioned, filled and actual (Professors /Associate Professors/ Asst. Professors/ others)

Following is the details of faculty in this department:

	Sanctioned	Filled	Actual (including CAS & MPS)
Professor	-	-	-
Associate Professors	-	-	1
Asst. Professors	4	4	3
Others	-	-	-

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Following is the details of faculty in this department:

Name	Qualification	Designation	Specialization	No. of years of Experience	No. of Ph.D, M.Phil, students guided for the last 4 years
Dr. Surendra Singh Chauhan	M.Sc. Ph.D.	Director	Environmental Science	18	8
Dr. T. I. Khan	M.Sc. PhD.	Associate Professor	Arid zone Ecology and Environmental Biology	26	8
Dr. Pankaj K. Jain	M.Sc. PhD.	Assistant Professor	Bioremediation	09	-
Ms. Prama Esther Soloman	M.Sc.	Assistant Professor	Disaster Management	02	-

12. List of senior Visiting Fellows, adjunct faculty, emeritus professor

No senior Visiting Fellows, adjunct faculty, emeritus professor is associated with this department for the past five years.

13. Percentage of classes taken by temporary faculty programme-wise information

Before the appointment of two regular faculty members in this department, few classes were assigned to guest faculty members as per requirement. Now all the classes are being engaged by regular faculty members of this department.

14. Programme-wise Student Teacher Ratio

Following are the approximate Programme-wise Student Teacher Ratios in different courses run by department:

PG programme	20:1
UG programme	NA

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

Total Number of Non-Teaching Employee

• Sanctioned		07
• Working		
(i) Administrative staff	-	02
(ii) Library Asstt.	-	01
(iii) Lab. Asstt.	-	01
(iv) Lab bearer	-	01
(v) Others (Peons)	-	02

16. Research thrust areas as recognized by major funding agencies

Following thrust area is recognized by major funding agencies:

- Environmental Science

17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

Faculty members of this center are not having any national or international research projects for the past five years.

18. Inter-institutional collaborative projects and associated grants received

a) National collaboration

Department has not established any national collaboration in past five years.

b) International collaboration

Department has not established any international collaboration in past five years.

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

Department has not received any departmental grant in past five years.

20. Research facility / center with

- State recognition

Department has not having any state recognized research facility.

- National recognition

Department has not having any nationally recognized research facility.

- International recognition
Department has not having any internationally recognized research facility.

21. Special research laboratories sponsored by/ created by industry or corporate bodies
NIL

22. Publications:

- * Number of papers published in peer reviewed journals (national/ international)
37
- * Monographs
NIL
- * Chapters in Books
NIL
- * Edited Books
11
- * Books with ISBN with details of publishers
02
- * Number listed in International Database (For *e.g.* Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.):
Information not available
- * Citation Index – range / average
N.A.
- * SNIP
N.A.
- * SJR
N.A.
- * Impact Factor – range / average
N.A.
- * h-index
N.A.

23. Details of patents and income generated
No patent has been generated during past five years.

24. Areas of consultancy and income generated
No consultancy work has been taken up by faculty members during past five years.

25. Faculty selected nationally/ internationally to visit other laboratories/ institutions/ industries in India and abroad
No Faculty member was invited by any National or International Research Institutes in connection with collaborative research programs during past five years.

26. Faculty serving in

- a. National committees

NIL

- b. International committees

NIL

- c. Editorial Boards

NIL

- d. Anyother (please specify)

Dr. Surendra Singh Chauhan:

1. Member, Board of Studies, Sarguja University, Chhattisgarh
2. Member, Rajasthan State Biodiversity Board,
3. Member, National Association of Geography, India.

Dr. T.I. Khan:

1. Member Board of Studies, University of Kota.
2. Member Board of Studies, MDS University, Ajmer.
3. Member, School Board & Board of Studies Central University of Himachal Pradesh, M.P.

27. Faculty recharging strategies (UGC, ASC, Refresher/ orientation programmes, workshops, training programs and similar programs).

- 3 Refreshers Courses in Environmental Science were organized
8.11.2010 to 27.11.2010 (participants-50) Environment and Sustainable Development
14.11.2011 to 3.12.2011 (participants-36) Climate Change and development
17.6.2013 to 6.7.2013 (participants-26) Environmental Issues

28. Student projects

- percentage of students who have done in-house projects including interdepartmental projects
NA
- percentage of students doing projects in collaboration with other universities/ industry/ institute
NIL

29. Awards/ recognitions received at the national and international level by

- Faculty
NIL
- Doctoral/ post doctoral fellows
NIL
- Students
NIL

30. Seminars/ Conferences/ Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.

Department organized national seminars on World Environment Day, every year on 5th June. This event is organized every year since 2009.

31. Code of ethics for research followed by the departments

Codes of conducted for research are followed as per UGC and University of Rajasthan norms.

32. Student profile programme-wise:

Following are the year wise and programme wise student's profile

Name of the Programme	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
M. Sc.					
2009-10	152	6	18	25	75
2010-11	143	7	19	26.92	73.07
2011-12	156	12	11	52.18	47.82
2012-13	145	11	7	61.11	38.88
2013-14	141	14	07	66.6%	33.3%
2014-15	138	11	12	47.82	52.18
Ph. D.					
2009-10	09	1	2	-	-
2010-11	11	-	3	-	-
2011-12	10	-	6	-	-
2012-13	06	1	1	-	-
2013-14	05	-	2	-	-
2014-15	06		2	-	-

33. Diversity of students

Following are the programme wise diversity of students in the center

Name of the Programme	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.Sc. Environmental Science	85.7%	14.2%	-	-
Ph.D. Course work	66.6%	-	33.3%	-

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Following are the details of students gathered from students who have cleared different competitive examinations

S. No.	Name of the students	Qualified NET/SLET/JRF
1	Neetu Mahawar	NET
2	Sunita Lakhiwal	NET/ SLET/ JRF
3	Tarachand Saini	NET/ SLET/ JRF
4	Meenakshi Meena	NET
5	Kiran Mala	NET
6	Anuradha Mehta	NET/ JRF
7	Chetna Pradhan	SLET
8	Daisy Sabal	NET
9	Alka Kataria	NET/ SLET
10	Prama E Andrew	NET
11	Mayanka Kala	NET
12	Aruna Sharma	NET/ JRF
13	Anil Kumar Dular	NET
14	Shikha Devpura	NET/ JRF

35. Student progression

Following is the student's progression:

Student progression	Percentage against enrolled
UG to PG	NIL
PG to M.Phil.	NIL
PG to Ph.D.	As per availability of vacant seats
Ph.D. to Post-Doctoral	NIL
Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	NIL
Entrepreneurs	NIL

36. Diversity of staff

Following is the diversity of faculty in this department:

Percentage of faculty who are graduates	
of the same university	100%
from other universities within the State	NIL
from universities from other States	NIL
from universities outside the country	NIL

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. assessment period

No faculty member was awarded M. Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

38. Present details of departmental infrastructural facilities with regard to

a) Library

The Department has its own Departmental Library which houses nearly 2600 text books.

b) Internet facilities for staff and students

Wi-Fi and LAN facilities are provided to all faculty members, research scholars and PG students through University INFONET center.

c) Total number of class rooms

Department has 02 class rooms.

d) Class rooms with ICT facility

Department has 01 class room with ICT facility

e) Students' laboratories

Department has 01 students laboratory (Environmental Lab-1)

f) Research laboratories

Department has 01 research laboratory (Environmental Lab-2)

39. List of doctoral, post-doctoral students and Research Associates

a) from the host institution/ university

List of Ph. D. awarded from 2009-2015

S. No.	Name of Students	Year of award	Title of Ph.D Thesis
1.	Ms. Rekha Sethi	Degree awarded on 2009	Effects of Vermicompost on Physiological and Biochemical Parameters of <i>Pisum Sativum</i> , Sens ampl. Var. Azad P-1, <i>Arachis hypogaea</i> , L. Var. M-13 and <i>Vigna unguiculata</i> , L Var. RC-101.
2.	Ms. Saru Gupta	Degree awarded on 2009	Electrochemical Treatment of Dye Wastewater And Its Toxic Effect On Fish
3.	Ms. Aruna Sharma	Degree awarded on 2010	Evaluation of Selected Organic and Chemical Fertilizers and Pesticides on <i>Lycopersicon esculentum</i> (Mill.), <i>Triticum aestivum</i> (L.) and <i>Arachis hypogaea</i> (L.) .
4.	Ms. Mayanka Kala	Degree awarded on 2010	Study of the effect of textile waste water on <i>Abelmoschus esculentus</i> , <i>Cyamopsis</i>

			<i>tetragonaloba</i> and <i>Pisum sativum</i> with emphasis on heavy metal contents.
5.	Ms. Radha Gautam	Degree awarded on 2010	Effect of High Fluoride Content on Flora and Fauna of Nawa Tehsil in Nagaur District
6.	Anuradha Mehta	Degree awarded on 2013	Effect of Industrial Effluents on Selected Crop Plants
7.	Mrs. Yasmeen Khan	Degree awarded on 2014	Effect Of Chemical Pesticides On Some Crop Plants And Environment A Case Study of Sriganganagar
8.	Esabela	Degree awarded on 2014	Study of Morphological And Biochemical Effects On Some Common Crops Grown In Waste Water Irrigated Areas Of Jaipur

List of Ph. D. submitted

S. No.	Name of Students	Year of submitted	Title of Ph.D Thesis
1.	Ms. Pinky Sainy	2015	Study of the Effect of Fluoride Toxicity on Pennisetum Typhoides, Capsicum Annum and Brassica Oleracea in Neem Ka Thana, District, Sikar
2.	Ms. Jaishree	2015	Study on the effect of textile waste water on ecophysiological changes in legume crops, (<i>Vigna unguiculata</i> and <i>Phaseolus mungo</i>) in Sanganer
3.	Navneet Joshi	2015	Studies On Effect Of Heavy Metals On Morpho – Cytological Changes In Green Vegetables Grown In Jaipur

List of Ph. D. student's ongoing-2015

S. No.	Name of Students	Title of Ph.D Thesis
1.	Rinku Agarwal	Physico-Chemical Study Of Fluoride Content Level Of Some Plants Cultivated In Devli Town Of Tonk District
2.	Neetu Mahawar	Fluoride Toxicity Vis-A-Vis Defluoridation By Nalgonda Technique: A Case Study Of Sanganer Tehsil Of Jaipur District (Rajasthan)
3.	Mr. Ramlal Bairwa	Impact of Anthropogenic activities on the Biodiversity of Ranthambore National Park.
4.	Meenakshi Meena	Isolation and characterization of diesel degrading bacterial population from contaminated sites of arid zone and study of effected microenvironment.

5.	Priya Goyal	Physico-chemical study of heavy metals on some crop species <i>phaseolus aureus</i> , <i>capsicum annum</i> and <i>cicer arietinum</i> cultivated in Sanganer Area of Jaipur District.
6.	Sunita Lakhiwal	Effects of the Treated Waste Water on Soil and Some Crop Plant Species Cultivated in Delawas Area of Jaipur District
7.	Preeti Shrimal	Effects of Vermicompost on growth and some physiological parameters of Bengal gram, Green gram and Tomato.
8.	Kiran Mala	Effect of salinity on some physiological parameters of wheat, cowpea and cluster bean at Sambhar town.
9.	Veena Legha	Effect of treated sewage water irrigation on essential plant nutrients and pollutant elements status in crop growing area of Bikaner, Rajasthan.
10.	Tara Chand Saini	Biodiversity Conservation: A Case Study of Sikar District with Special Reference to Shakambari (Rajasthan).
11.	Chetna Pradhan	Impact of Water Quality on Selected Cultivated Plant Species of Jaipur.
12.	Alka Kataria	Comparative Study of Selected Organic and Inorganic Fertilizers and Pesticides with Special Reference to Residue Analysis in Mustard, Sesame and Groundnut.
13.	Prama Esther Andrew	Impact of Soil and Groundwater Qualities on Selected Cultivated Plant Species of Jaipur with Special Reference to Mathuradaspura Dumping Site.
14.	Sakshi Jain	Environmental Impact Assessment of Polluted Water in Jaipur: A Case Study of Dravyavati River Basin (Amanishah Nallah), Sanganer Area
15.	Arshi Iram	Study of the Effect of Fluoride Toxicity on <i>Abelmoschus esculentus</i> and <i>Cyamopsis tetragonoloba</i> in Some Villages of Sawaimadhopur Tehsil, Rajasthan

b) from other institutions/universities

NA

40. Number of post graduate students getting financial assistance from the university.

No post graduate student from this department is getting financial assistance from the university.

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

Yes, department undertakes need assessment exercise by organizing BoS/ CoC/ Workshop and Seminars whenever there is new requirements in terms of infrastructure, and laboratory. For field trips or study tours, consultative meetings are being convened after discussion the matter with students, technical staff and

teachers. Academic programmes are taken up at Bos/ CoC and academic council meeting after due consultation at the Department level in staff council.

42. Does the department obtain feedback from
- Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?
Yes. The inputs from teachers with regard to the curriculum and teaching learning evaluation process as practiced and experienced by them in the classrooms is regularly discussed at faculty meeting/ Staff Council and constructive remedial measures are taken by bringing into the Bos/ CoC.
 - Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?
Yes. Department takes informal feedback from students for course curriculum and about faculty members. The feedback is then discussed in staff committee and Staff Council.
 - Alumni and employers on the programmes offered and how does the department utilize the feedback?
Departmental alumni association is active and its meeting is being held regularly. Members of alumni association provide their feedback for designing course curriculum.
43. List the distinguished alumni of the department
Department presently has no renowned alumni.
44. Give details of student enrichment programmes (special lectures/ workshops/ seminar) involving external experts.
Department organized seminars and workshops on regular basis based on M.Sc. Environment Science curriculum. (Every year department organized special lectures/seminars on 5th June, World Environment Day, 16th September as Ozone Depletion Day and on 22nd April, as Earth Day.)
45. List the teaching methods adopted by the faculty for different programmes.
Faculty members normally adopt blackboard teaching method during their class room teaching. Several times they also apply power point presentation for better understanding. Allotment of home assignments to students is also a regular practice. Department also organizes tutorials, Student Seminars and Group Discussions for the benefit of students.
46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?
Department ensures that programme objectives are constantly met through frequent discussions with experts, faculty members and student's, regular teaching alongwith continuous assessment, class tests, assignments, class seminars and end semester examinations.

47. Highlight the participation of students and faculty in extension activities.

Students regularly participate in the NSS and NCC activities during their UG courses, organize cultural programs, sports activities at the Department and University level, as well as competitions organized by other Institutions. Students participate in training programmes, field works, seminars/ conferences while faculty members participate in Refresher Courses, Orientation Courses and other need based programmes.

48. Give details of “beyond syllabus scholarly activities” of the department.

Department organizes Environmental Awareness Programmes and Society need based programmes every year and students actively participate in these programmes.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

NO

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

Department is involved in preparing data base in the form of published research papers, dissertation and thesis pertaining to socially need based environmental field of Heavy Metal Toxicity, Fluoride Toxicity, Organic farming, Biodiversity conservation and pesticide residue.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Following are major Strengths, Weaknesses, Opportunities and Challenges of the department:

Strength

- (i) Pioneering research centre on environment issues in India
- (ii) Multi-disciplinary character of the courses offered in Indira Gandhi Centre
- (iii) Introduction of post-Graduation Programme in M.Sc. Environmental Science
- (iv) Courses based on society need based problem
- (v) Extensive field visits around areas of concern such as industries, waste disposal, slums and residential areas.

Weakness

- (i) Paucity of space for lectures, laboratories and seminar hall
- (ii) Shortage of staff both teaching and non-teaching
- (iii) Need for facilities academic exchange programmes with foreign universities

Opportunities

- (i) Research opportunities in the field of environment
- (ii) Development of departmental library as a repository library on environment
- (iii) Publication of Ph.D. thesis and research papers of faculty

Challenges

- 1) Under staffing at different level
- 2) Infrastructure enhancement
- 3) Challenge of fulfilling the objectives with limited resources.

52. Future plans of the department.

Following are the future plans of this department:

1. To develop the Centre as Department of excellence in the field of Environment.
2. To produce environmentally trained manpower including Environmentalist, Population Ecologist and Human Ecologist.
3. To strengthen Research activities
4. To organize Environmental Awareness programmes/ Seminars/ Conferences etc.
5. To publish books and research articles

Indira Gandhi Centre for Human Ecology, Environmental and Population Studies has plan pertaining to upgrade research activities teaching programmes and extension activities. In teaching New papers have been introduced in curriculum at post graduation level. The curriculum had been approved by committee of courses (COC) and subsequently will be approved by higherbodies. In research new sponsor will be touched. We will be upgrading instrumentation facilities like CLC and HPLC, this will be processed for pesticide residence analysis and toxic and hazardous chemicals analysis in soil, crop plants and water facilities will be upgraded for analysis of toxic gases and suspended particulate matter. Environmental Extension programme will be launched in School, Colleges and other institution like Institute of Development studies, Indira Gandhi Panchayati Raj. Institution etc.