

**ANNUAL QUALITY ASSURANCE REPORT
2019-20**

**Institute of Environment Education and
Research**

(Period : July 2019 - June 2020)

The Annual Quality Assurance Report (AQAR) of the IQAC (For Universities) for the Academic Year 2019-20

Part – A

Data of the Institution

(data may be captured from IQA)

1. Name of the Institution Institute of Environment Education and Research, Bharati Vidyapeeth Deemed to be University Katraj, Dhankawadi, Pune 411043

- Name of the Head of the Institution : Prof. Dr. Erach Bharucha
- Designation: Director
- Does the institution function from own campus: Yes
- Phone no./Alternate phone no. 20 24375684, 020-24362155
Mobile no. 9881072101
- Registered Email: admin@bvieer.edu.in
- Alternate Email : shamita@bvieer.edu.in
- Address: Institute of Environment Education and Research, Bharati Vidyapeeth (Deemed to Be) University
- City/Town : Pune
- State/UT: Maharashtra
- Pin Code : 411043

2. Institutional status:

- University: ~~State/Central~~/Deemed/Private: Deemed
(Tick appropriate)
- Type of Institution: Co-education/Men/Women : Coeducation
- Location : ~~Rural/Semi-urban~~/Urban: Urban
- Financial Status: Centrally funded/state funded/Private (please specify): Private
- Name of the IQAC Co-ordinator/Director: Dr Kranti Yardi

- Phone no. /Alternate phone no. : 24362155
- Mobile: 9422504655
- IQAC e-mail address: kranti@bvieer.edu.in
- Alternate Email address: shamita@bvieer.edu.in

3. Website address: <http://ieer.bharativedyapeeth.edu>

Web-link of the AQAR: (Previous Academic Year):

For ex.

4. Whether Academic Calendar prepared during the year?

Yes/No....., if yes, whether it is uploaded in the Institutional website: Yes

Weblink: <https://ieer.bharativedyapeeth.edu/>

5. Accreditation Details

Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1 st	A		2004	from:2004 to: 2010
2 nd	A	3.16	2011	from:2011 to: 2016
3 rd	A+		2017	from:2017 to: 2024
4 th				from: to:
5 th				from: to:

6. Date of Establishment of IQAC: 6 October 2012

7. Internal Quality Assurance System

7.1 Quality initiatives by IQAC during the year for promoting quality culture

Item /Title of the quality initiative by IQAC	Date & duration	Number of participants/beneficiaries
1. Regular meetings of IQAC	12 April 2019 27 November 2019 12 June 2020 3.00-5.00 pm	9 7 6
2. Feedback from students	<ul style="list-style-type: none"> • M.Sc. (Environment Science and Technology): 29 November 2019 • M.Sc. (Geoinformatics): 2 	<ul style="list-style-type: none"> • 41 students for M.Sc. (Environment Science and Technology) • 28 students for M.Sc. (Geoinformatics)

	December 2019	<ul style="list-style-type: none"> 45 students for M.Sc. (Wildlife Conservation Action)
	<ul style="list-style-type: none"> M.Sc. (Wildlife Conservation Action): 3 December 2019 	
3. Participated in NIRF (Overall category)	November 2019	

Note: Some Quality Assurance initiatives of the institution are:

(Indicative list)

- Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback from all stakeholders collected, analysed and used for improvements
- Academic Administrative Audit (AAA) conducted and its follow up action
- Participation in NIRF
- ISO Certification
- NBA etc.
- Any other Quality Audit

8. Provide the list of Special Status conferred by Central/ State Government-

UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/ Department/Faculty	Scheme	Funding agency	Year of award with duration	Amount
BVIEER has been appointed as the Project Management Unit for the National Geospatial Capacity Building Program of the National Geospatial Program (NGP) of the Department of Science and Technology, Government of India.	National Geospatial Program (NGP) of the Department of Science and Technology, Government of India	Department of Science and Technology, Government of India (NRDMS)	2019-2021	29,92,000

9. Whether composition of IQAC as per latest NAAC guidelines: Yes

**upload latest notification of formation of IQAC*

10. No. of IQAC meetings held during the year: Three

The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website.....

Yes/No - No

(Please upload, minutes of meetings and action taken report)

11. Whether IQAC received funding from any of the funding agency to support its activities during the year? No

If yes, mention the amount: Year:

12. Significant contributions made by IQAC during the current year (maximum five bullets)

- Orientation to Blooms taxonomy for evaluation methods for faculty including design of rubrics for evaluation.
- Strengthening international collaboration for internationalization of teaching and research at the Institute.
- Moving towards transdisciplinary research through training faculty and students in collaboration with international experts from the Free University of Berlin, Germany.
- Orientation of faculty to synchronous and asynchronous teaching using online platforms during the COVID pandemic. Encouraging faculty to acquire certification for online teaching.
- Development of strategy for internal assessment online during the COVID pandemic.

13. Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year

Plan of Action	Achievements/Outcomes
<p>Strengthening of teaching learning process through invitation of expert guest faculty and new MoU's.</p>	<p>Four different training sessions were conducted for students by international faculty at BVIEER. These are:</p> <p>Transdisciplinary Research Methods conducted by Dr. Regine Schoenerberg, Free University of Berlin, Germany from 29 June to 20 July 2019 for 23 students of M.Sc. (Environment Science and Technology).</p> <p>Workshop on Hydrological Modeling using GIS was conducted by Dr. Wolfgang Korres, Institute of Geography, Hydrogeography and Climatology Research Group, University of Cologne from 1 August to 4 October 2019 for 21 M.Sc. Geoinformatics students.</p> <p>Summer School on Soil and Water Resources was conducted by Prof. Dr. Karl Schneider, Institute of Geography Hydrogeography and Climatology Research Group, University of Cologne from 18 September to 4 October 2019 for 15 M.Sc. Geoinformatics students and 7 University of Cologne students.</p> <p>A joint field work on 'Conservation Practices and Problems' at Pench National Park, Madhya Pradesh with students of BVIEER and the International Masters of Environmental Sciences jointly by BVIEER faculty and Prof. Kirk Junker,</p>

Strengthening of Joint International research through application for joint funding and producing joint research papers.

Chair, US American Law and Director, International Master in Environmental Sciences, University of Cologne, Germany from 1- 12 March 2020. In the field work 18 M.Sc. (Environment Science and Technology) students and 17 M.Sc. Geoinformatics students and 7 University of Cologne students participated.

Special sessions on International Environment Law for students of M.Sc. (Environment Science and Technology) was held from 13-14 March 2020.

Fall School: 16 students and two faculty from BVIEER were funded under the DAAD Program, Passage to India' to attend a fall school in Germany on Indo-German Partnerships: Environmental Interactions in Focus: Urban Green and Biodiversity Management.

MoU: Six MoUs were signed which included for exchange of students and faculty, some ongoing MoUs and new one was signed with Bureau Veritas to have certified courses by a renowned organization which are recognised in professional world.

Joint research on water issues in the peri-urban areas of Pune under an MoU signed for the purpose from 2-22 November 2019 was conducted. This is led by Dr. Carsten Butsch, Geography Department, University of Cologne.

Joint field work on 'Smart City Development Process in Pune' with 10 students from University of Cologne led by Dr. Carsten Butsch, Geography Department, University of Cologne and BVIEER faculty from 13 March to 23 March 2020 was conducted.

Scaling up environmental awareness and outreach.

Under the '**Ánkuram**' program (School Sustainability Education Program) modules were conducted for school students from 15 schools from Maval and Mulshi in Pune district and 15 schools in Kirloskarwadi in Sangli district on biodiversity and sustainable development as year long program.

Biodiversity education and awareness programmes focussing on Coastal and Marine Biodiversity' were conducted for 25 schools in the Okha Mandal region in Gujarat as a year long program.

'Fridays for Future': Film shows on environment were conducted every Friday for students of other colleges of campus as a student driven environment activity as part of the '**Fridays for Future**' program of the Institute.

Awareness programmes through street play were conducted in Maval villages near Pune as a part of NSS activity.

Tree plantation of 1000 trees was done in Lonavala dam catchment area with TATA Power and Forest Department.

Coordination of the implementation of the National Capacity Building Program in Geospatial Science and Technology of the Central Training Programme of Department of Science and Technology, Government of India.

Students participated in **Swachh Bharat Abhiyan** campaign conducted by Pune Municipal Corporation to clean the banks of the Mula-Mutha.

Centralised **orientation session** was conducted for all 32 PI's to explain the format of training programme as well implementation and evaluation. Centralised application procedures, candidate selection, feedback were set up in the online mode through the <http://dst-iget.in>

Sending new research proposals to funding agencies.

A proposal was sent to Kirloskar Brothers Ltd to conduct the School Sustainability Education Program for 15 schools of Kirloskarwadi. The project was sanctioned in January 2020 with a funding 10 lakhs for the year 2020-21.

A proposal was submitted to the TATA Power company to conduct Biodiversity related School Sustainability program in 15 schools of Mawal and Mulshi tehsils. A funding of Rs. 8 lakhs were sanctioned by them for the year 2019-20.

A proposal was submitted to Tata Trust for a School Sustainability Education Program in schools of Mawal and Mulshi tehsils for the year 2020-21. A fund of Rs. 15 lakhs was sanctioned and released in the month of March 2020.

14. Whether the AQAR was placed before statutory body? Yes /No: No

Name of the statutory body:

Date of meeting(s):

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to Assess the functioning?

Yes/No: No

Date:

16. Whether institutional data submitted to AISHE: Yes/No: Yes

Year: 2019

Date of Submission:

17. Does the Institution have Management Information System?

Yes

If yes, give a brief description and a list of modules currently operational.

Management Information System uses Enterprise Resource Planning System (ERP) for last few years. The processes in the institute are automated through appropriate software. Finance departments uses Tally software.

Oracle Peoplesoft Campus Solution software is used to manage academic and administration related processes. The software helps to manage all the student records using following modules.

- Student recruitment and admissions
- Student finance
- Student records

The curriculum management is in progress by using Microsoft Teams.

Part-B

CRITERION I – CURRICULAR ASPECTS

1.1 Curriculum Design and Development

1.1.1 Programmes for which syllabus revision was carried out during the Academic year

Name of programme	Programme Code	Dates of revision
Masters in Environment Science and Technology	MEVST	May 2019
Masters in Geoinformatics	MGI	May 2019
Masters in Wildlife Conservation Action	MWCA	May 2019

1.1.2 Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year

Programme with Code	Date of Introduction	Course with Code	Date of Introduction
Masters in Environment Science and Technology (MEVST), Masters in Geoinformatics (MGI), Masters in Wildlife Conservation Action (MWCA)	June 2013	GEN 301 Personality development GEN 401 Entrepreneurship development	June 2013
Masters in Environment Science and Technology MEVST	May 2019	EST 403- Certification for ISO 140001 EST 405 – Certification of Industrial Safety and Occupational Health These are professional certifications by Bureau Veritas an international agency whose certification is valid globally.	May 2019
Masters in Environment Science and Technology (MEVST), Masters in Geoinformatics (MGI), Masters in Wildlife Conservation Action (MWCA)	May 2019	Field Work: Builds skills of field craft	May 2019
Masters in Geoinformatics (MGI), Masters in Wildlife Conservation Action (MWCA) Masters in Wildlife Conservation Action	June 2013 June 2019	GEO 412: Internship CA 411: Internship CA 401: Conservation	June 2013 June 2019

(MWCA)		Leadership	
1.2 Academic Flexibility			
1.2.1 New programmes/courses introduced during the Academic year			
Programme/Course		Date of introduction	
Masters in Environment Science and Technology (MEVST) Programme <ul style="list-style-type: none"> • EST 105: Introduction to Data Analysis • EST 213: Field Work (P) • EST 209: Data Analysis with R • EST 30:- Technical Writing • GEN 301: Swachh Bharat Internship • GEN 302: Education for Sustainable Development • EST 304: Environment Management includes certification for ISO 9001 (Quality, Health and Safety, Environmental Protection) • EST 401: Eco restoration • EST 403: Certification for ISO 140001 (Lead auditor) • EST 405: Certification for Industrial Safety and Occupational Health ISO 450001 • EST 407: Green Buildings 		June 2019	
Masters in Geoinformatics (MGI) Programme <ul style="list-style-type: none"> • EST 105: Introduction to Data Analysis • GEO 215: Fieldwork • EST 209: Data Analysis with 'R' • GEO 304: Photogrammetry • GEO 305: Water management and Geospatial Technologies • GEN 301: Technical writing 		June 2019	
Masters in Wildlife Conservation Action (MWCA) Programme		June 2019	

- EST 105: Introduction to Data Analysis
- CA 101: Sustainability Of Socio-Ecological Systems
- CA 103: Conservation Problems And Practices
- CA 11: Field Taxonomy I
- CA 202: Behavioural Ecology
- CA 211: Advanced Statistics
- CA 213: Field Taxonomy II
- CA 214: Field work
- EST 401: Eco restoration
- GEN 202: Technical writing
- GEN 201: Project Management
- CA 40: Conservation Leadership
- CA 403: Conservation Management
- GEN 401: Entrepreneurship Development

1.2.2 Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the University level during the Academic year.

Name of Programmes adopting CBCS	UG	PG	Date of implementation of CBCS / Elective Course System	UG	PG
Masters in Environment Science and Technology (MEVST), Masters in Geoinformatics (MGI), Masters in Wildlife Conservation Action (MWCA)	NA	PG	June 2013	NA	PG
Already adopted (mention the year) since 2013					

1.3 Curriculum Enrichment

1.3.1 Value-added courses imparting transferable and life skills offered during the year

Value added courses	Date of introduction	Number of students enrolled
GEN 202: Project Management	2013	126
GEN 302: Technical writing	2019	67
GEN 402: Soft skills	2013	59
EST 209: Data analysis with R	2019	24
EST 304: Environment Management	2019	15

Techniques (Certification for ISO 9001)		
EST 403: Certification for ISO 140001	2019	
EST 405:Industrial Safety and Occupational Health which includes ISO 45000 Certification	2019	

1.3.2 Field Projects / Internships under taken during the year

Project/Programme Title	No. of students enrolled for Field Projects / Internships
GEO 311 and 411:Dissertation	21
GEO 412:Internship	21
CA 31: Dissertation	22
CA 411:Internship	13
EST 311 and 411: Dissertation	23

1.4 Feedback System

1.4.1 Whether structured feedback received from all the stakeholders.

1) Students	2) Teachers	3) Employers	4) Alumni	5) Parents
Yes	Yes	Yes	Yes	Yes

1.4.2 How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

The feedback from students regarding the course (every semester separately as well as the end feedback on student satisfaction survey) is taken online. It includes detailed feedback on courses, faculty, infrastructure, facilities and services as per the format given by UGC. The analysis is shared with the respective faculty one to one by the Director and Vice Principal. In case of negative feedback the faculty is informed and counselled on how to overcome it. In case of very bad feedback especially about visiting faculty is the faculty is replaced. In 2019-20 two faculty were replaced. One for the course on Integrated Impact Assessment and Climate Change Science and Strategies. Besides this an exit meeting is held for students of Semester IV for qualitative feedback where they are asked to rank the competencies they acquired and also provide qualitative feedback.

The student feedback has been used to make the following changes:

- Improve course content especially addition of field work sessions.
- Improve teaching of specific courses.
- Introduction of new courses in the syllabus.
- Improvement of infrastructure.

CRITERION II -TEACHING-LEARNING AND EVALUATION

2.1 Student Enrolment and Profile

2.1. 1 Demand Ratio during the year

Name of the Programme	Number of seats available	Number of applications received	Students Enrolled
Masters in Environment Science and Technology	30	45	18
Masters in Geoinformatics	25	32	18
Masters in Wildlife Conservation Action	20	108	21

2.2 Catering to Student Diversity

2.2.1. Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of full time teachers available in the institution teaching only UG courses	Number of full time teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2018-19	nil	126	nil	3+ 15 Adjunct faculty	1:7

2.3 Teaching - Learning Process

2.3.1 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of teachers on roll	Number of teachers using ICT (LMS, e-Resources)	ICT tools and resources available	Number of ICT enabled classrooms	Number of smart classrooms	E-resources and techniques used
3	3+ 15 Adjunct faculty	Wifi, Skype, Moodle, Google classroom, computer internet lab and GIS software like ARC GIS, ERDAS and open source software	5	5	MOOCs for SWAYAM, EdX, Open source GIS, dst-iget.in (a learning portal developed by BVIEER) During COVID- Google Meet, Zoom sessions, Microsoft

		such as QGIS, SAGA, R, Python			TEAMS, Cisco Webex meeting softwares were used to conduct online classes and internal exams for students.
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2.3.2 Students mentoring system available in the institution? Give details. (maximum 500 words)

Fulltime faculty members are well aware of the mentoring system in the Institute. Information about this is provided to the students during their induction programme. The Adjunct faculty who are senior faculty members also guide and mentor the students. Peer Mentoring is also encouraged. Informally senior students and alumni mentor/guide/advise junior students for each of the courses.

Formal Mentoring: Each faculty is mentor guide for 7-8 students for over a year starting from the semester. 1-1.30 hrs. per student is allotted for this activity. This facilitates academic mentorship guiding the student in several aspects of research from design to publication of research as well as guiding in other life skills.

Informal Mentoring: Informal sessions on improving student abilities in academics, research, etc. are conducted by the in-house faculty once every semester during the course of their class work.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor: Mentee Ratio
129	3+ 15 Adjunct faculty	1:7

2.4 Teacher Profile and Quality

2.4.1 Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
5	3	2	0	2

2.4.2 Honours and recognitions received by teachers

(received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

<i>Year of award</i>	<i>Name of full time teachers receiving awards from state level, national</i>	<i>Designation</i>	<i>Name of the award, fellowship, received from Government or recognized bodies</i>

	<i>level, international level</i>		
2019	Dr. Erach Bharucha	Technical Member	National Tiger Conservation Authority of Central Government.
2019	Prof. Dr. Shamita Kumar	National Coordinator National Coordinator Committee Member Member, Executive Committee	1. Project Management Unit for National Level Geospatial Capacity Building Program of the NRDMS, DST, Govt of India 2. ESD Expert Net- Four country programme sponsored by Engagement Global, Germany 3. Committee for Geospatial Fellowship, DST- NRDMS, GOI 4.KUNDAL- Maharashtra State Forestry Training Institute , Govt. of Maharashtra.
2018-19	Dr. Kranti Yardi	Chairman Member	Environment Education subject committee of Maharashtra State Board of Secondary and Higher secondary Course (HSSC) for writing the textbook for XII standard. Expert Committee member Maharashtra State Board of Secondary and Higher Secondary School to decide Evaluation and marking system for XI and XII standard Environment Science textbooks.

2.5 Evaluation Process and Reforms

2.5.1 Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year- end examination	Date of declaration of results of semester-end/ year- end examination
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M.Sc. Environment Science and Technology	MEVST	Semester	2/7/2019 to 24/10/2019 12/12/2019 to 12/6/2020 (covid)	27-12-2019 Due to Covid Pandemic exam was delayed
M.Sc. Geoinformatics	MGEO	Semester	2/7/2019 to 24/10/2019 12/12/2019 to 12/6/2020 (covid)	27-12-2019 Due to Covid Pandemic exam was delayed
M.Sc. Wildlife Conservation Action	MWCA	Semester	2/7/2019 to 24/10/2019 12/12/2019 to 12/6/2020 (covid)	27-12-2019 Due to Covid Pandemic exam was delayed

2.5.2 Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year

**Do not include re-evaluation/ re-totalling*

Number of complaints or grievances about evaluation	Total number of students appeared in the examination	Percentage
4	126	3.1%

2.6 Student Performance and Learning Outcomes

2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution

(09) They are mentioned in the syllabus.

2.6.2 Pass percentage of students

Programme Code	Programme name	Number of students appeared in the final year examination	Number of students passed in final Semester /year examination	Pass Percentage
MEVST	M.Sc. Environment Science and Technology	23	25	86.21%
MGEO	M.Sc. Geoinformatics	21	9	69.23%
MWCA	M.Sc. Wildlife	23	19	

	Conservation Action			90.48%
2.7 Student Satisfaction Survey				
2.7.1 Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)				
Student satisfaction Survey				
The student satisfaction survey has been conducted and the results displayed on the website				

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION**3.1.Promotion of Research and Facilities****3.1.1 Teachers awarded National/International fellowship for advanced studies/ research during the year**

	Name of the teacher awarded the fellowship	Name of the Award	Date of Award	Awarding Agency
National				
International	Dr. Shamita Kumar	DAAD ‘Passage to India’ (Environmental Interactions in Focus: Biodiversity Conservation and the Law’	October 2019	University of Cologne, Germany through DAAD
International	Dr. Erach Bharucha	DAAD ‘Passage to India’ (Environmental Interactions in Focus: Urban Transformations)	December 2019	University of Cologne, Germany through DAAD

3.1.2 Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other fellows in the Institution enrolled during the year

Name of Research fellowship	Duration of fellowship	Funding agency
Kimberly Colaco	3 years	Tata Power Community Development Trust
Shraddha Shigwan	3 years	Vikas Charitable trust, Kirloskar Brothers Ltd
Amruta Khatavkar	2 years	Department of Science and Technology, Government of India
Dhaval Vargiya	2 years	Tata Chemicals Society for Rural Development
Chirag Solanki	2 years	Tata Chemicals Society for Rural Development
Fall School’ Environmental Interactions in Focus: Sustainable City Development’ (10 students)	10 days	University of Cologne through DAAD Passage to India

Fall School' Environmental Interactions in Focus: Urban Transformation Processes in Cologne' (5 students)	15 days	University of Cologne through DAAD Passage to India		
Environmental Interaction in Focus: Environment Law and Sustainable Smart Cities (1 student)'	10 days	University of Cologne through DAAD Passage to India		
3.2 Resource Mobilization for Research				
3.2.1 Research funds sanctioned and received from various agencies, industry and other organisations				
Nature of the Project	Duration	Name of the funding Agency	Total grant sanctioned	Amount received during the year
Major projects	2019 to 2021	National Geospatial Program, Dept. of Science and Technology, Govt. of India	29.92 lakhs	14.9 lakhs
Major Project	2019-2020	National Geospatial Program, Dept. of Science and Technology, Govt. of India	10 lakhs	10 lakhs
Minor Projects	NIL			
Interdisciplinary Projects	NIL			
Industry sponsored Projects	2019-20	TATA Power Community Development Trust	8 lakhs	8 lakhs
Industry sponsored Projects	2019-20	Vikas Charitable Trust	8.2 lakhs 10.2 lakhs (second phase)	8.2 lakhs 3.69 lakhs
Industry sponsored Projects	2019-20	Tata Chemicals Society for Rural Development, Mithapur	17.13 lakhs 24.2 lakhs	17.13 lakhs Not received
Projects sponsored by the University				
Students Research Projects (other than compulsory by the University)	2019-2020	Mangrove Foundation, Mumbai	1.5 lakhs	Rs. 1.10 lakhs

International Projects	2019-2020	University of Cologne	11.07lakhs	9.97lakhs
International Projects	2019	Indo German Centre for Sustainability, Germany, DWIH New Delhi, Consulate General of The Federal Republic of Germany	2,05,000	2,05,000
International Projects	2019-2023	DAAD Germany through University of Cologne, Germany	530.953,41 Euro (excluded in total)	30.20
Total	5	8	120.22 lakhs	67.54 lakhs

3.3 Innovation Ecosystem - NIL

3.3.1 Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of Workshop/Seminar	Name of the Dept.	Date(s)
NIL		

3.3.2 Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of the Awardee	Awarding Agency	Date of Award	Category
NIL				

3.3.3 No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Centre	Name	Sponsored by
NIL		

Name of the Start-up	Nature of Start-up	Date of commencement
NIL		

3.4 Research Publications and Awards

3.4.1 Ph. Ds awarded during the year

Name of the Department	No. of Ph. Ds Awarded
Geoinformatics	1
Environment Science	1

3.4.2 Research Publications in the Journals notified on UGC website during the year

	Department	No. of Publication	Average Impact Factor, if any
National			
International	Geoinformatics	3	5.4
	Environment Science	2	0.8
	Wildlife Conservation action	3	0.48

3.4.3 Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	No. of publication
Environment Science and Technology	02
Dr Erach Bharucha	<p>Biodiversity Conservation Action by Corporate Houses: A Study of Tata and Godrej Group in India in the book Corporate Biodiversity Management for Sustainable Growth: Page No 153-169 Springer International publishing : ISSN 978-3-030-42702-3</p> <p>Sacred Groves: Memories of What Had Been in the book :Wild Treasures-Reflections on Natural World Heritage Sites in Asia; Published in 2019 UNESCO Category 2 Centre on World Natural Heritage Management and Training for Asia and The Pacific Region, Wildlife Institute of India, Dehradun in Association with Aryan Books International</p> <p>ISBN:978-81-85496-43-6(PB) 978-81-7305-627-7(HB)</p>

3.4.4 Patents published/awarded during the year

Patent Details	Patent status Published/Filed	Patent Number	Date of Award

3.4.5 Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the paper	Name of the author	Title of the journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self

						citations
Urban growth analysis and simulations using cellular automata and geo-informatics: comparison between Almaty and Astana in Kazakhstan.	Ilyassova, A., Kantakumar, L.N., Boyd, D.,	Geocarto International 1–20., 2019	2019	5	Institute of Environment Education and Research, Bharati Vidyapeeth (Deemed to be) University, Pune	4
Comparing the effects of dynamic versus static representations of land use change in hydrologic impact assessments.	Wagner, P.D., Bhallamudi, S.M., Narasimhan, B., Kumar, S., Fohrer, N., Fiener, P.,	https://doi.org/10.1016/j.envsoft.2017.06.023 Environmental Modelling & Software Volume 122, December 2019, 103987	2019,	4.8	Institute of Environment Education and Research, Bharati Vidyapeeth (Deemed to be) University, Pune	22
What drives urban growth in Pune? A logistic regression and relative importance analysis perspective	LN Kantakumar, S Kumar, K Schneider	Elsevier Sustainable Cities and Society Volume 60, September 2020, 102269	2019	1	Institute of Environment Education and Research, Bharati Vidyapeeth (Deemed to be) University, Pune	0

Channa brahmacharyi sp. nov., a new species of dwarf snakehead from Meghalaya, North-East India (Teleostei: Channidae)	Priyankar Chakraborty, Kranti Yardi, Prasun Mukherjee	Species Volume 21 Issue 67 Pages 101-108	2019	0	Bharati Vidyapeeth Institute of Environment Education and Research, Bharati Vidyapeeth (Deemed to be) University, BVIEER Pune	0
Notes on the discovery and ecology of the invasive armoured catfish Pterygoplichthys disjunctivus (Weber, 1991) and the exotic cichlid Amphilophus trimaculatus (Gunther, 1867) from Southern West Bengal, India	Priyankar Chakraborty, Suktara Chakraborti, Prasun Mukherjee, Kranti Yardi, Subhankar Das	Ecological Questions Volume 31 Issue 1 Pages 1-11	2020	0	Bharati Vidyapeeth Institute of Environment Education and Research, Bharati Vidyapeeth (Deemed to be) University, BVIEER Pune	0
Building walls around open wells prevent Asiatic Lion <i>Panthera leo persica</i> (Mammalia: Carnivora: Felidae) mortality in the Gir Lion Landscape, Gujarat, India.	Kagathara, T., Bharucha, E., 2020.	Journal of Threatened Taxa 12, 15301–15310.	2019	0	Bharati Vidyapeeth Institute of Environment Education and Research (BVIEER), Pune, India	0
Sustainable management of ecosystems: Coherence in cross-sectoral laws is	Gouri S. Joshi, Erach Bharucha	International Journal of Innovative Technology	2019	0	Bharati Vidyapeeth Institute of Environment Education and Research,	0

imperative."		gy and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 DOI: 10.35940/ijitee.D1005.0394S20			Bharati Vidyapeeth University, Pune	
Biodiversity Conservation Action by Corporate Houses: A Study of Tata and Godrej Group in India, in: Corporate Biodiversity Management for Sustainable Growth	Bharucha, E., 2020.	Springer, pp. 153–169.	2019	0	Bharati Vidyapeeth Institute of Environment Education and Research, Bharati Vidyapeeth (Deemed to Be) University, Dhankawadi, Pune- 411043	0

3.4.6 h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the paper	Name of the author	Title of the journal	Year of publication	h-index	Number of citations excluding self citations	Institutional affiliation as mentioned in the publication
Urban growth analysis and simulations using cellular automata and geo-informatics: comparison between Almaty and Astana in Kazakhstan.	Ilyassova, A., Kantakumar, L.N., Boyd, D.,	Geocarto International 1–20., 2019	2019	7	4	Institute of Environment Education and Research, Bharati Vidyapeeth (Deemed to be) University, Pune
Comparing the effects of dynamic versus static representations of land use change in hydrologic impact assessments.	Wagner, P.D., Bhallamudi, S.M., Narasimhan, B., Kumar, S., Fohrer, N., Fiener, P.,	https://doi.org/10.1016/j.envsoft.2017.06.023 Environmental Modelling & Software Volume 122, December 2019, 103987	2019	12	22	Institute of Environment Education and Research, Bharati Vidyapeeth (Deemed to be) University, Pune
What drives urban growth in Pune? A logistic regression	LN Kantakumar, S Kumar,	Elsevier Sustaina	2019	7	0	Institute of Environment

and relative importance analysis perspective	K Schneider	ble Cities and Society Volume 60, September 2019, 102269				Education and Research, Bharati Vidyapeeth (Deemed to be) University, Pune
Channa brahmacharyi sp. nov., a new species of dwarf snakehead from Meghalaya, North-East India (Teleostei: Channidae)	Priyankar Chakraborty , Kranti Yardi, Prasun Mukherjee	Species Volume 21 Issue 67 Pages 101-108	2019	3	0	Bharati Vidyapeeth Institute of Environment Education and Research, Bharati Vidyapeeth (Deemed to be) University, BVIEER Pune
Notes on the discovery and ecology of the invasive armoured catfish Pterygoplichthys disjunctivus (Weber, 1991) and the exotic cichlid Amphilophus trimaculatus (Gunther, 1867) from Southern West Bengal, India	Priyankar Chakraborty , Suktara Chakrabarti, Prasun Mukherjee, Kranti Yardi, Subhankar Das	Ecological Questions Volume 31 Issue 1 Pages 1-11 (impact factor-0.7)	2020	3	0	Bharati Vidyapeeth Institute of Environment Education and Research, Bharati Vidyapeeth (Deemed to be) University, BVIEER Pune
Building walls around open wells prevent Asiatic Lion <i>Panthera leo persica</i> (Mammalia: Carnivora: Felidae) mortality in the Gir Lion Landscape,	Kagathara, T., Bharucha, E., 2020.	Journal of Threatened Taxa 12, 15301–15310.	2020	9	0	Bharati Vidyapeeth Institute of Environment Education and Research

Gujarat, India.						(BVIEER), Pune, India
Sustainable management of ecosystems: Coherence in cross-sectoral laws is imperative."	Gouri S. Joshi, Erach Bharucha	International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 DOI: 10.35940/ijitee.D1005.0394S20	2019	9	0	Bharati Vidyapeeth Institute of Environment Education and Research, Bharati Vidyapeeth University, Pune
Biodiversity Conservation Action by Corporate Houses: A Study of Tata and Godrej Group in India, in: Corporate Biodiversity Management for Sustainable Growth	Bharucha, E., 2020.	Springer, pp. 153–169.	2020	9	0	Bharati Vidyapeeth Institute of Environment Education and Research, Bharati Vidyapeeth (Deemed to Be) University, Dhankawadi, Pune-411043

3.4.7 Faculty participation in Seminars/Conferences and Symposia during the year :

No. of Faculty	International level	National level	State level	Local level
Attended Seminars/ Workshops	3	1	1	
Presented papers				
Resource Persons	3	6	1	3

3.5 Consultancy**3.5.1 Revenue generated from Consultancy during the year**

Name of the Consultant(s) department	Name of Consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)
Erach Bharucha, Director	Planning workshop to develop a national level strategy on conservation of small cats in India	United Nations Development Programme	6,00,000

3.5.2 Revenue generated from Corporate Training by the institution during the year

Name of the Consultant(s) & Department	Title of the Programme	Agency seeking training	Revenue generated (amount in rupees)	Number of trainees
	NIL			

3.6 Extension Activities**3.6.1 Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year**

Title of the Activities	Organising unit/ agency/ collaborating agency	Number of teachers coordinated in such activities	Number of students participated in such activities
Tree plantation	TATA Power Company on	2 teachers	52 students from BVIEER planted

programme in catchments of Lonavala lake- as a part of plantation programme of Maharashtra Forest Department	4 July 2019		1002 trees.
Nature trail for school students	Vikas Charitable Trust, Kirloskar Brothers limited, Sangli	2 teachers	12 students from BVIEER conducted school sessions
Wetland visit to students of Bharati vidhyapeeth school	BVIEER	2 teachers	9 students conducted sessions
Environment awareness outdoor programme of Lonavala schools	TATA Power Community Development Trust	3 staff and students	20 BVIEER students
NSS activity in remote area of Maval region	BVIEER NSS unit		53 students participated and conducted programmes in school of Sangise village for environment awareness through street play.
Visited Santgaon – flood affected village, Sangli District to decide strategy of management	Bharati Vidyapeeth University team 23 August 2019	Dr. Erach Bharucha and Dr. Shamita Kumar – 2 faculty	No students

3.6.2 Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the Activity	Award/recognition	Awarding bodies	No. of Students benefited
Preparation of Action Plan of a stretch of Ram river in Pune	Certificates received for preparing and presenting the action plan for Ram river restoration	Kirloskar Vasundhara Film festival-ecorangers projects on river restoration	15 M.Sc. EVST students
Swachh Bharat Abhiyan by Pune Municipal Corporation for cleaning river bed plastic after the flood condition.	Certificate for participation and removing plastic from Mutha river bank.	Pune Municipal Corporation and Terre Policy Centre, Pune	7 M.Sc. EVST students

3.6.3

Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/ agency/ collaborating agency	Name of the activity	Number of teachers coordinated in such activities	Number of students participated in such activities
Vasundhara Film festival	Kirloskar Oil Engines Ltd	Eco rangers for green action – Ram river project	1	19
Swachh Bharat Abhiyan	Pune Municipal Corporation and Terre Policy Centre, Pune	Clean Pune Green Pune	1	10

3.7 Collaborations

3.7.1 Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of Activity	Participant	Source of financial support	Duration
Transdisciplinary Research Methods By	23 M.Sc.	Free University of Berlin, Germany and BVIEER	29 June to 20 July 2019

International faculty	EVST student s		
Hydrological Modeling using GIS	21 M. Sc.GEO student s	University of Cologne, Germany	1 August to 4 October 2019
Summer School on Soil and Water Resources	21 M. Sc.GEO student s	University of Cologne, Germany	18 September to 4 October 2019
Conducting joint research on water in the peri-urban areas of Pune.	12 student s from BVIEER	University of Cologne, Germany	2-22 November 2019
Conducted joint field work at Pench National Park.	M.Sc. EVST (23 student s) and M.Sc. GEO (21 student s and IMES ,Germany (7 student s)	University of Cologne, Germany	1-12 March 2020
Block teaching for students on ‘ Biodiversity science and law’ for International Masters In Environmental Science, Cologne University, Germany	Dr Shamit a Kumar from BVIEER	University of Cologne, Germany	October 2018
Conducted classes on ‘ Environmental law: an International Perspective’ for BVIEER students	M.Sc. EVST (23 student s)	Prof. Dr. Kirk Junker , University of Cologne, Germany	13 and 14 March 2019
Conducted lectures on ‘ Urban fringe developments’ as part of Field work at Pune	M.Sc. EVST (12 student s)	Dr. Carsten Butsch, Geography Department , University of Cologne, Germany	13 March to 23 March 2020
Internship for 4 months	Mr.	University of Cologne, Germany	1April to 31

	Ronit Jadhav		July 2019
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3.7.2 Linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration (From-To)	Participant
Internships	Student internship	Defence Terrain Research Laboratory (DRTL), Defence Research Development Organisation (DRDO), New Delhi	February to July 2020	Bhawana Kumari
Internship	Student internship	Bhaskaracharya Institute for Space Applications and Geoinformatics (BISAG) Gujarat	February to July 2020	Deotra Goswami
Internship	Student internship	GeoSpoc Geospatial Service Pvt. Ltd.	February to July 2020	Devlekar Aashlesha
Internship	Student internship	Bharati Vidyapeeth (Deemed to be Univeristy), Institute of Environment Education and Research	February to July 2018 February to July 2020	Harshal Ashutosh Jayawant
Internship	Student internship	Antef Technologies Private Limited, New Delhi	February to July 2020	Hitesh Pravin Patil
Internship	Student internship	DST and Biotechnology, Kolkata	February to July 2020	Madhulika Mitra
Internship	Student internship	Regional Remote Sensing Center - East Kolkata	February to July 2020	Madhumita Chowdhury
Internship	Student internship	Maharashtra Remote Sensing Application Centre, Pune	February to July 2020	Madhura Anil Bhalerao
Internship	Student internship	Cybertech Systems and Software Ltd., Mumbai	February to July 2020	Madhurima Ghosh
Internship	Student internship	Regional Remote Sensing Center - East Kolkata	February to July 2020	Moumita Maity
Internship	Student internship	Antef Technologies Private Limited, New Delhi	February to July 2020	Syed Mohammad Muzammil
Internship	Student internship	Center for Public Policy Research, Ernakulam, Kochi	February to July 2020	Uma Bhavani
Internship	Student internship	National Institute of Oceanography, Mumbai	February to July 2020	Yamini Bhadreshil

				Mewada
Internship	Student internship	Wildlife Conservation Society, Bangalore	February to July 2020	Adyasha Nayak
Internship	Student internship	Wildlife Trust of India, New Delhi	February to July 2020	Amrit Pal Roop Chand Resham Kaur
Internship	Student internship	Wildlife Trust of India, New Delhi	February to July 2020	Andrew Dias
Internship	Student internship	Wildlife Trust of India, New Delhi	February to July 2020	Rathod Ganesh Shankar
Internship	Student internship	IISER, Tirupati	February to July 2020	Ritobroto Chanda
Internship	Student internship	Snow Leopard Conservancy India Trust, Leh Ladakh	February to July 2020	Sangay Wangdi Bhutia
Internship	Social internship	World Wide Fund For Nature- India, Madhya Pradesh Office	February to July 2020	Sharath Sadanand Anchatageri
Internship	Social internship	Centre for Ecological Sciences Indian Institute of Science, Bengaluru, Karnataka	February to July 2020	Shreesh Kaulgud
Internship	Student internship	Bombay Natural History Society, Mumbai	February to July 2020	Shubham Yadav
Internship	Social internship	Wildlife Trust of India, New Delhi	February to July 2020	Suhas Doble
Internship	Social internship	Wildlife Trust of India, New Delhi	February to July 2020	Viril Stephen Se
Internship	Education Internship	RSPB, London	February to July 2020	Amanda D'silva
Internship	Social Internship	Luta Innovation, Ratnagiri, Maharashtra	February to July 2020	Swanand Rajan Patil

3.7.3 MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose and Activities	Number of students/teachers
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			participated under MoUs
University of California, Riverside , USA	14 April 2016	Exchange of faculty members and research fellows, exchange of students, academic material, joint research projects-ongoing	Discussion ongoing
University of Cologne , Germany	12 Nov 2018	Exchange of faculty members and research fellows, exchange of students, academic material, joint research projects-ongoing	16 students of BVIEER and one teacher went to UOC, Germany . 16 students and 4 faculty came from UOC for Joint field work and for teaching.
Engagement Global, Germany	10 July 2017 ongoing	Leadership for ESD and Development of training material – Dr. Erach Bharucha	Two faculty (Dr Erach Bharucha and Dr Shamita Kumar) and one leadership Trainee (Ms. Kimberley Colaco) and Mr. Shivam Trivedi , Ph. D. scholar participated.
Wildlife Trust of India, New Delhi	Since 2013 onwards	M. Sc. Wildlife Conservation action course	5 students were given paid internships and 3 students were selected as project staff on various WTI projects. 7 staff members were involved in teaching the course.
Indo German Sustainability Center, Germany	November 2018	3rd Indo German Dialogue on Green Urban Practices: Co-creation of the Living Environment	Two days Indo German Dialogue was conducted at BVIEER in December 2019. All faculty and students were involved .

CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
Rs. 57.23 lakhs	Rs. 27.87 lakhs

4.1.2 Details of augmentation in infrastructure facilities during the year

Facilities	Existing	Newly added
Campus area	2397.76 sq. m.	-
Class rooms	4	
Laboratories	3	
Seminar Halls	1	
Classrooms with LCD facilities	4	
Classrooms with Wi-Fi/ LAN	4	
Seminar halls with ICT facilities	4	
Video Centre		
No. of important equipments purchased (\geq 1-0 lakh) during the current year.		
Value of the equipment purchased during the year (Rs. in Lakhs)		
Others		

4.2 Library as a Learning Resource

4.2.1 Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or partially)	Version	Year of automation
SOUL	partially	2.0	2013

4.2.1 Library Services: 19-20

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	1875	229189	94	56096	1969	285285
Reference Books	240	219019	12		252	256563
e-Books						
Journals	17	14671			17	146171
e-Journals						
Digital Database						
CD & Video	157					
Library automation						

Weeding (Hard & Soft)						
Others (specify)						

4.2.2 E-content developed by teachers such as: e-PG-Pathshala, CEC (under e-PG-Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/ NMEICT/ any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the teacher	Name of the module	Platform on which module is developed	Date of launching e - content
Dr. Shamita Kumar	All India capacity building programs of the National Geospatial Program of the Department of Science and Technology, Government of India are run through this platform till date. In the last year 32 programs were conducted through use of this platform.	http://dst-iget.in	Dec-13

4.3 IT Infrastructure

4.3.1 Technology Upgradation (overall)

	Total Computer s	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Available bandwidth (MGBPS)	Others
Existing	40	1	40	2	1	1	1	5	
Added	-	-	-	-	-	-	-	-	-
Total	40	1	40	2	1	1	1	5	

4.3.2 Bandwidth available of internet connection in the Institution (Leased line)

5 MBPS /GBPS

4.3.3 Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
Dst-iget	http://dst-iget.in

4.4 Maintenance of Campus Infrastructure

4.4.1 Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities
Rs 3181800/-	Rs. 818753/-	Rs. 2321800/-	Rs. 2229389/-

4.4.2 Procedures and policies for maintaining and utilizing physical, academic and support facilities – laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website, provide link)

- **Academics:** Maintenance of each classroom is done twice a year during the end of each semester. Regular cleanliness is assigned to a fixed team and issues arising from these are discussed in the weekly meetings. A health check on equipment is done twice a semester. Issues arising periodically are dealt with the technical team.
- **Infrastructure:** Maintenance is done at the end of academic year after the end of exams which includes regular cleaning, repairs and replacement and new construction if required.

CRITERION V - STUDENT SUPPORT AND PROGRESSION

5.1 Student Support

5.1.1 Scholarships and Financial Support

	Name /Title of the scheme	Number of students	Amount in Rupees
Financial support from institution			
Financial support from other sources			
a) National			
b) International	DAAD scholarships , Germany	17	27,48,000

5.1.2 Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
Soft skill development	16 July 2019	23 from EVST	Local Professional
Soft skill development	17 July 2019	21 from WCA	BVIEER and Local Professional
	18 July 2019	23 from GIS	Local professional

5.1.3 Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students by Guidance for Competitive examination	Number of benefited students by Career Counselling activities	Number of students who have passed in the competitive exam	Number of students placed
2019	Career counselling	8	61	1	44

5.1.4 Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	No. of grievances redressed	Average number of days for grievance redressal
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5	5	3 days
5.2 Student Progression		
5.2.1 Details of campus placement during the year		
On campus		Off Campus
Name of Organizations Visited	Number of Students Participated	Number of Students Placed
		Wildlife trust of India
		6
		4
		Wildlife Conservation Trust
		1
		1
		Geospoc
		2
		1
		Geocon Consultancy
		3
		1
		Cybertech Ltd.
		06
		1

5.2.2 Student progression to higher education in percentage during the year					
Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of Programme admitted to
2019	1	M.Sc. EVST	BVIEER	Oxford University, London	Ph. D. Programme fully funded.
2019	1	M.Sc. EVST	BVIEER	Manipal University through Ashoka Trust for Research in Ecology and in Environment	Ph. D. Programme fully funded.
2019	2	M.Sc. EVST	BVIEER	BVIEER	Ph. D. Environment Science

5.2.3 Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services) NIL

Items	No. of Students selected/qualifying	Registration number/roll number for the exam
NET	2	Roll No. 86007799, Roll No: WB10512722
SET		
SLET		
GATE	1	EY20 S58006009
GMAT		
CAT		
GRE		
TOFEL		
Civil Services		
State Government Services		
Any Other	Employed students: 21 EVST, 12 GEO and 11 WCA	

5.2.4 Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Participants
Interclass sports	College level	52

5.3 Student Participation and Activities

5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/medal	National/International	Sports	Cultural	Student ID number	Name of the student
	NIL					

5.3.2 Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

There is one student on the IQAC committee of the Institute. Their opinion regarding any other facilities are considered.

5.3 Alumni Engagement

5.3.1 Whether the institution has registered Alumni Association? Yes/No, if yes give details (maximum 500 words):

Alumni association is not registered.

There was no separate activity conducted for alumni in the year 2019-20. However the alumni visit the institute. The alumni who are entrepreneurs are invited for guest lectures on entrepreneurship development. They are involved in various other activities like when DST official meetings are organized or when international seminars and activities are conducted by the institute. The alumni act as mentors in students dissertations. They are called for guest lectures as per their expertise. They are involved in internal evaluations of dissertations. There is one Alumni on the IQAC committee and the inputs are integrated wherever possible.

5.3.2 No. of registered Alumni: 463

5.3.3 Alumni contribution during the year (in Rupees) : NIL

5.3.4 Meetings/activities organized by Alumni Association : NIL

CRITERION VI –GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

Vision: To be a world class University for Social Transformation through Dynamic Education

Mission: To ensure that education for sustainability reaches every individual in the society and is delivered as target specific programs that can be easily acted upon.

6.1.1 Mention two practices of decentralization and participative management during the last year (maximum 500 words)

The institution follows a democratic and participatory mode of governance with all concerned participating actively in its administration. The Vice Chancellor and Academic Council delegates authority to the Director and Vice Principal who, in turn share it with the different levels of functionaries in the institute which includes the heads of departments, the convenors of the different cells, administrative staff and student representatives.

A key practice involving participative management is the weekly meeting which provides a forum for discussion on status of activities conducted as well as for new ideas from faculty and staff. The institute forms various academic and non-academic committees for specific purposes such as academic monitoring, student activities, outreach activities, etc. Regular meetings are convened amongst committee members, head of the institution, faculty, staff and the student representatives through which matters needing attention are discussed.

6.1.2 Does the institution have a Management Information System (MIS)?

Yes/No/Partial:

Yes

Yes. It is presently being set up through Oracle People soft and Microsoft TEAMS also has specific TEAMS set up for various academic, administrative tasks enabling central collation of data.

6.2 Strategy Development and Deployment

6.2.1 Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Curriculum Development

A) Major revisions to the syllabus are made every five years and minor revisions made every two years. The new curriculum instituted from 2019 onwards has incorporated certification required for environment professionals as part of the course. The certification is done by Bureau Veritas and internationally accredited agency. Students have the option of opting for EMS ISO 140001:2015 Lead Auditor course; Internal Auditor on IMS course and the CQI-IRCA Certified OHSMS ISO 45001: 2018 course. This boosts their opportunities for jobs after completion of the course.

- B) A two credit general course on ‘Swachh Bharat Internship / and interning for Education for Sustainable Development’ has been initiated. These courses generate a sense of social responsibility among the students.
- C) The curricula of the M.Sc. Environment Science and Technology, M.Sc. Geoinformatics and M.Sc. Wildlife Conservation Action have been changed to an outcome based program since June 2019. The learning outcomes of each course and the individual papers within a course are highlighted by the teacher at the beginning of the course. A reflective exercise is conducted at the end of the course to enable students to self reflect on the learning outcomes and their learning journey.
- D) Several initiatives in sync with the UGC mandate to maintain quality are taken. These include induction program for students and refresher programs as well as capacity building for new skills through certifications for teachers. The use of blended learning and Learner Management Systems for teaching was introduced. Building in academic credits for soft skills like entrepreneurship development, communication, technical writing, research methodologies, strengthening societal and industrial linkages through internships was added in the syllabus. Involvement of experts other than those from academia in the teaching program, using a system of conscious, formative and summative examinations with a diversity of tools and promoting quality research by students and faculty is evident in the publications in SCOPUS, Web of Science and UGC CARE indexed journals.
- E) Space for specialised modules by international faculty (our collaborative partners) are built into specific courses to enable students to get the benefit of internationalisation.

Teaching and Learning

A) **Internationalisation:** There has been conscious efforts at internationalization of teaching-training process. This has been done through the following:

International teaching: Three courses ranging from two weeks to one month have been conducted with inputs by the international faculty. These include a three week workshop on ‘Transdisciplinary Research Methods; conducted by Dr. Regine Schoenerberg, Free University of Berlin, Germany; four week teaching on ‘Soil moisture dynamics in the Mula-Mutha Watershed' by Dr. Wolfgang Korres from the University of Cologne, Germany; a two week Summer School on ‘Monitoring and Modeling of Water Fluxes and Resources in India' by Prof. Dr. Karl Schneider from the University of Cologne’ (10 international students also participated in this) one week on ‘International Environment Law’ by Prof. Dr. Kirk Junker, University of Cologne and a one week workshop on Modelling with R’ by Dr. Rohan Shetti from the University of Griefswald, Germany.

- **Joint Field Work** on various environment related issues with international students and gain international perspectives in problem solutions and governance.

This included a ten day joint field work session at Pench National Park with students of 35 students from BVIEER and 6 students from the International Masters of Environmental Sciences, University of Cologne, Germany and ten days in Cologne (with participation of 6 Indian students); joint field work on 'Urban Transformation' both in Pune (with participation of 10 German students) and in Cologne, Germany (with participation of 10 Indian students)

All of these international programs are funded by DAAD (The German Academic Exchange Service)

- **Joint Research:** Conducting joint research on water issues in the peri-urban areas of Pune under the project 'H2O-T2S-Livelihoods-Transformation Processes in Periurban Spaces' with Dr. Carsten Butsch, Department of Geography, University of Cologne, Germany.
- **Seminars/Dialogue:** The 3rd Indo-German Dialogue (IGD) Public Event – Co-creating our living environment for sustainable futures' was held jointly with the Indo German Sustainability Centre, IIT Chennai and a consortium of European Universities. Students actively participated in all the sessions.

A. **Profession Input:** Professionals from several national organizations such as Wildlife Trust of India, World Wide Fund for Nature India, Bombay Natural History Society, Wildlife Conservation Society and industries like Geocon, Cybertech are invited to provide guest lectures so as to enable the students to keep abreast of current trends and information in their respective fields.

B. **Faculty development:** Each faculty has obtained a certification on Online Teaching from QASPIR, UK that is accredited by CPD, UK. Microsoft TEAMS is being used as a Learning Management System.

Examination and Evaluation

A. Various methods of evaluation are implemented to ensure assessment of outcome based learning. These include group assignments, quiz, discussions, debates, field surveys and wikis.

B. The major examination reform is in the 40:60 division of marks for internal university exams. Electives are assessed based on continuous assessment and this enables the faculty to assess the student as per the outcomes mentioned in the syllabus. Assignments are part of assessment and include problem solving exercises and innovation challenges besides critically reviewing research papers bringing in a diversity in assessment techniques.

C. Model answers are prepared along with the rubrics. For University examinations, the paper is jointly checked by the internal and external evaluator as well as being moderated.

D. In the COVID situation all the internal exams were conducted online through various modes. Google forms were used for internal core course exams of 20 marks. For continuous assessment exams questions were application oriented and case study based. This was found to be very useful to judge the understanding of students regarding the

subject.

- A. Various modes like Google forms were used for internal core course exams of 20 marks. For continuous assessment exams questions were application oriented and case study based and was found to be useful to judge the understanding of students regarding the subject.

Research and Development

- A. This is given utmost importance and is overtly inculcated among the students through structured courses, formal mentorship and continuous evaluation. Courses on research Methodology and Technical writing have been introduced in the curriculum.
- B. A special workshop on research writing was conducted for selected students by a nationally renowned senior scientist. Students developed draft research papers based on their thesis as an outcome of the same.
- C. Faculty and students are encouraged to participate in conferences and workshops.
- D. Thrust is given on social and applied research. Students from the M.Sc. (Wildlife Conservation Action) program are mandated to prepare a detailed Conservation Action Plan as a final output of their research work. This orients them to conducting application based research targeted at solving ground problems.
- E. Students and faculty members are encouraged to publish their research papers in indexed journals.
- F. Both faculty and students are encouraged to apply for research grants.

Library, ICT and Physical Infrastructure / Instrumentation

- Updating the library with new reference books and periodicals. E books are also added to the E library.
- Regular maintenance and calibration of laboratory equipment.
- Purchase of new equipment/s through externally funded projects.
- Students are informed of JGTE facilities with access to National Knowledge Network.
- Introducing online resources and formalizing their use like EDX, Swayam has been introduced.

Human Resource Management

- A. Faculty are encouraged to upgrade their knowledge through participation in online courses for new trends such as R and Python in Geospatial Applications, for Online teaching, etc. The Adjunct faculty who are a key component of the course are selected on the basis of a rigorous selection process. Their contribution in bringing in current trends in the field to the course is of vital importance.
- B. The faculty is allowed to take consultancies which not only builds their expertise but also contributes to student capacity building as selected students are involved in this process.
- C. Faculty are encouraged to take up international teaching assignments through the

exchange programmes helps in improving the quality of teaching and learning and research.

- D. Faculty members are motivated to apply and obtain research grants from various government and non-government research funding agencies and are encouraged to publish their research contributions in various National and International Journals
- E. Decentralised and participative management practised.

A mix of permanent and adjunct faculty with personnel from industry and research and other social organisations with atleast a ten year experience form a strong pool of expertise that students can draw upon.

Industry Interaction / Collaboration

- A. Industry managers are invited to give guest lectures for students to keep them abreast of new trends as well as facilitate the building of contacts for future opportunities.
- B. Students are involved in Corporate Social responsibility projects of the institute.
- C. Students are encouraged to undertake research based on industrial needs under the guidance of mentors from industry.
- D. Feed back from industry persons is solicited during curriculum revision.
- E. Industrial visits are organized to study issues related to environment management, pollution control technology, environment, health and safety aspects, etc.

Admission of Students

- A. Admission is through a nationwide Common Entrance Test (CET) conducted by the University. The brochure, fees and application form are finalized and after approval from the admission committee and are uploaded on the website. Entrance exam process, selection procedure, eligibility criteria along with the guidelines of the interview are mentioned in the application form and website. Counselling dates are uploaded on the website and also sent to the prospective/shortlisted students through call letters. Students, who meet the criteria, need to appear for an interview process where panel is from Industry/Alumni and Faculty. The counselling process is exploratory in nature prospective and ascertains the student interest in a particular course. The entire admission process in online.
- B. Regular updating of Institute website and the facebook page with events and opportunities.

6.2.2 : Implementation of e-governance in areas of operations:

Planning and Development

The Institute uses a decentralised and participative management approach. Most of the process related to administration, planning and development are in the process of being changed to online systems. Governance is done using the Oracle People Soft and Microsoft TEAMS for Education is used as a Learner Management System for uploading of notes and other material. Admissions are done online by the University. The Institute has its own LAN connection to communicate it with internal stakeholders. Institute maintains

its website www.bharativedyapeeth.edu to communicate its philosophy and updates to external partners and prospective students.

Administration

- Administration involves upkeep of infrastructure and buildings as well as day to day administration of courses, human resource management, etc. Oracle People Soft is used for this purpose. Internal admin team consisting of the Director and key faculty review the same every quarter.

Finance and Accounts

- The Institute has already taken various steps for implementation of E-Governance in Finance &Accounts. Fee collection of students is on line. Deposit of fee by cash is prohibited.
- On line deposit of PF/ESI as well as on line deposit of TDS.
- Online payment to vendors.

Student Admission and Support

- A. The admission process is entirely online and is communicated to the students through the website. The brochure detailing the admission procedure, payment of fees, nature of the CET, cut off dates and percentages, refund rules is prepared in conjunction with the university every year and uploaded on the website.
- B. The Institute has three key activities which include **Prutha**: biodiversity documentation of the campus; **Ankuran**: our school environment education programs where students can volunteer and **Fridays for Future**: a film show for raising awareness among the general student population on campus organised by students of BVIEER. Students are actively allotted roles in these programs besides being encouraged to participate in photography, bird watching , trekking activities.
- C. Medical and health facilities are provided on the campus.
- D. Career counselling is done regularly along with Exit interviews.

Examination

- The entire examination procedure from filling of examination form to distribution of examination papers is online.
- All the assessment components, modes and time are specified in the syllabus. Summative and formative tests are used for student assessment. These tests are spaced out throughout the semester and included assignments administered through a basket of tools, internal short tests, continuous assessment and University examinations. The papers for the University examinations are set through the collaboration of internal and external experts.
- Questions in the question paper are based on Bloom's Taxonomy and evaluate higher order thinking skills. The question paper for internal examinations includes objective and subjective questions while the external examinations use a combinations of short and long answers based on Bloom's taxonomy or higher order thinking skills.

6.3 Faculty Empowerment Strategies

6.3.1 Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2019	Dr. Kranti Yardi	South Asia Consortium for Interdisciplinary Water Resources Studies (SaciWATERS) on H2O-T2S in Urban Fringe Areas”,		12,000/-
2019	Dr Shamita Kumar	Education for Sustainable Development Expert Net Meeting and Conference, Puebla, Mexico, November 2019		Onduty deputation
2019	Dr. Erach Bharucha	Education for Sustainable Development Expert Net Meeting and Conference, Puebla, Mexico, November 2019		Onduty deputation
2019	Dr. Shamita Kumar	Short term teaching (3 weeks) at the University of Cologne, Germany (funded by DAAD)		On duty deputation

6.3.2 Number of professional development / administrative training programmes organized by the University for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	Dates (from-to)	No. of participants (Teaching staff)	No. of participants (Non-teaching staff)
2019		Soft Skills	June 2019		6

6.3.3 No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	Date and Duration (from – to)

6.3.4 Faculty and Staff recruitment (no. for permanent/fulltime recruitment):

Teaching		Non-teaching	
Permanent	Fulltime	Permanent	Fulltime

6.3.5 Welfare schemes for

Teaching	Preference card for health facility in Bharati Hospital
Non teaching	Preference card for health facility in Bharati Hospital
Students	Facility to get admitted in hospital in case of health problems .

6.4 Financial Management and Resource Mobilization

6.4. 6.4.1 Institution conducts internal and external financial audits regularly. Internal and external audit is done every year. Internal audit is done quarterly and external audit is done twice a year. The queries raised in the audit are carefully deliberated on to strengthen the system. Minor errors of omissions and commissions when pointed out by the audit team are immediately corrected / rectified and precautionary steps are taken to avoid recurrence of such errors in future.

6.4.2 Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government funding agencies/ individuals	Funds/ Grants received in Rs.	Purpose

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6.4.2 Total corpus fund generated

6.5 Internal Quality Assurance System

6.5.1 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	No		Yes	University
Administrative	No		Yes	University

6.5.2 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

(if applicable)

The management of the University is highly supportive of the involvement of the BVIEER faculty with Government and non-government environment organizations and committees to which they are appointed. It has provided the Institute with sufficient flexibility to adapt its teaching programs to the rapidly changing needs in the field. The management of the University is committed to the enhancement of the activities of the BVIEER in all its multidimensional research and outreach actions.

6.5.3 Activities and support from the Parent – Teacher Association (at least three)

1. Involvement during Orientation
2. Feedback from parents who are professionals in similar field is actively sought.
3. Support in upholding institutional ethos and value is sought.

6.5.4 Development programmes for support staff (at least three)

- Account Officer was sent for training for installing new softwares and training of its operations which was organised by university.
- ICT and ERP training for support staff to upgrade library services and administrative procedures.
- Support staff was also trained for use of ICT for record maintenance, examination work and admission related documentation.
- Librarian attended the one day programme organised by university on recent advances in library facilities.
- Peons are trained to handle solid waste effectively in the Institute.

6.5.5 Post Accreditation initiative(s) (mention at least three)

1. Internationalization of teaching and learning has been strengthened through a DAAD grant enabling scientific excellence in teaching and learning.
2. Design of a robust outcome based curriculum developed through feedback and participation of all partners.

Upgradation of infrastructure on a regular basis.

6.5.6

- a. Submission of Data for AISHE portal : (Yes)
- b. Participation in NIRF : (Yes)
- c. ISO Certification : (Yes/No)
- d. NBA or any other quality audit : (Yes /No)

6.5.7 Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting activity	Duration (from----to-----)	Number of participants
2019	Workshop on "Transdisciplinary Research Methods" by Dr. Regine Schoenberg, Free University of Berlin, Germany	1 July to 20 July 2019		23
2019	Classrom teaching, ' Soil moisture dynamics in the Mula-Mutha Watershed' by Dr. Wolfgang Korres, Institute of Geography Hydrogeography and Climatology Research Group University of Cologne	1 August to 4 October 2019	10.30 to 12.30 pm	21
2019	Summer school on 'Monitoring and modeling of water fluxes and resources in India' by Prof. Dr. Karl Schneider, and Dr. Korres Wolfgang, Institute of Geography, Hydrogeography and Climatology Research Group University of Cologne, Germany	18 September to 4 October 2019	9.30 am to 4.30 pm	University of Cologne 10 students and 10 students from BVIEER
2020	Joint field work for 'Urban Transformations' in Pune from University of Cologne, Germany	10-21 March 2020	9.00 am to 4.30 pm	University of Cologne 10 students and 10 students from BVIEER
2020	Joint Field work on 'Conservation Practices and problems" at Pench Tiger Reserve with 6 International students from University of Cologne, Germany	1- 12 March 2020.	7 am to 8 pm	46 students of BVIEER and 7 students from Cologne
2019	Fall School ,'Urban Transformations' at the Univeristy of Cologne, Germany	7-26 October 2019	9.00 am to 4.30 pm	10 BVIEER students went to Germany

2019	Fall School ,'Sustainable Urban Development' at the Univeristy of Cologne, Germany	12-26 October 2019	9.00 am to 4.30 pm	6 BVIEER students went to Germany
2019	Joint field work for Joint Research Project, 'H2O-T2S-Livelihoods-Transformation Processes in Periurban Spaces' Dr. Carsten Butsch, Department of Geography, University of Cologne, Germany	from 2-22 November 2019	8.00 am to 5.30 pm	2 staff and 2 students of BVIEER
2019	Conduction of Induction Program and Exit Meetings	2 to 5 July 2019 And 9 to 11 August 2019	10am to 4.30 pm	59 students
2019	Strengthening Research Publications Meeting			All students

CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 - Institutional Values and Social Responsibilities

7.1.1 Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period (from-to)	Participants	
		Female	Male

7.1.2 **Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:**

Percentage of power requirement of the University met by the renewable energy sources

At Institute level

One of the highlights of the Institute is its ‘green’ building that has a very low carbon footprint and incorporates the use of non-conventional energy source, rain water harvesting, recycling, and waste management measures. The building serves as a model of sustainability. A large number of students from other colleges and also students from outside Pune come to study the design and environment friendly initiatives of the building.

At campus level

Conducting an environment awareness film show every Friday under the ‘Fridays for Future’ program. Students of other colleges on the campus from IT, Ayurved , Homeopathy, Architecture, Hotel Management, Engineering, etc. attend this program. BVIEER faculty conducts lectures on environment consciousness to all colleges of the campus as part of the core module course on environment. Campaigns for celebrations of festivals such as Ganesh, Diwali and Holi in eco-friendly ways are conducted on campus.

Students carry out environment audit of the colleges of campus to understand what further action can be taken.

A new initiative to document the biodiversity of the campus has been initiated.

Solid waste management at the Institute is done through drum composting and recycling.

At city level

Several dissertations on topics relevant to environment management at the city level are undertaken. These include monitoring of the Sustainable Development Goals projects of local government, Biodiversity index of the city, waste management issues of city, etc. The findings are shared with city officials.

School teachers and students are oriented towards sustainability issues through capacity building programmes. Students conduct programmes in over 50 schools on environment awareness. The programs include nature exposure, greening of schools, management of solid waste in villages through the schools, etc.

At State level

There are various programmes which are sponsored by industries, focusing on education for sustainable development being implemented in the remote areas of the state in the Mulshi

and Mawal tehsils of the Western Ghats and rural areas of Sangli district. The programme reaches to around 2000 to 3000 students through these education sessions. The modules mainly focus on water conservation, solid waste management, biodiversity conservation and activity based learning which focus on local issues.

BVIEER staff engage with the State Textbook Bureau for preparation of curriculum and textbooks for Environment Studies for Class XI and XII.

At national level

BVIEER alumni and present students are involved in conducting research on biodiversity conservation in different states and action programmes are suggested and are conducted across the country. BVIEER conducts a Marine Conservation Program in 15 schools in Mithapur, Gujarat.

BVIEER staff engage with NCERT in preparing the policy of environment education for the country.

At International level

BVIEER staff is a part of ESD EXPERT NET (<https://www.esd-expert.net/home.html>)

An international consortium for Education for Sustainable Development Programme, consisting of professions from Germany, Mexico, South Africa and India. The Consortium is a think tank for policy and implementation of ESD nationally as well conducts an international Leadership Programme on Sustainable Development.

7.1.3 Differently abled (Divyangjan) friendliness

Items Facilities	Yes/No	No. of Beneficiaries
Physical facilities	yes	nil
Provision for lift	no	
Ramp/ Rails	yes	nil
Braille Software/facilities	no	
Rest Rooms	yes	
Scribes for examination	no	
Special skill development for differently abled students	no	
Any other similar facility	no	

7.1.4 Inclusion and Situatedness

Enlist most important initiatives taken to address locational advantages and disadvantages during the year

- A. Environment friendly green infrastructure specially designed for the needs of an environment institute. It includes environment friendly construction material, ventilation, rain water harvesting, and a nature trail which is used for field ecology practical for students.

- B. Ability Enhancement Compulsory Course is conducted for all the other constituent Units of the university located on the campus. Students from other colleges are invited to the Institute to highlight the importance of environment and initiatives can that be taken to make the environment eco-friendly in their own professions. The advantage of an Environment Institute conducting such a course brings passionate faculty and develops a deep interest among the students.
- C. Pune is hub of industries, research institutions and pool of highly talented faculty from industries. This pool is utilised via guest lectures enhancing students understanding of issues and bringing in current perspectives. It also enables organisation of field visits to industries and research institutes.
- D. Pune also has national laboratories like National Center for Cell sciences, National Chemical laboratory, Western Regional Center of Zoological Survey of India, Botanical Survey of India which are visited by students for their dissertations and for internships. The students do internships with IISER, Pune , Survey of India , Regional Remote Sensing Center, Maharashtra. Laboratory like NCCS is used by students for their dissertations and they have interactions with the scientists. In 2019 one student from M.Sc. Environment Science and Technology conducted her lab experiments in NCCS.
- E. The possibility to offer the ISO certification course as a credit module was possible mainly because of the location as the certifying organization Bureau Veritas , an internationally renowned certification body is present in Pune.

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date and duration of the initiative	Name of the initiative	Issues addressed	Number of participating students and staff
2019	advantage	5	5 July 2019	Greening catchments in the Western Ghats	Afforestation of the catchment of the Tata Power Company in Mawal tehsil to reduce soil erosion and boost ecosystem service.	51 students and four faculty
2019		48	June 2019 to March 2020	Green schools	Implementing of environment education modules on waste management, biodiversity conservation, documenting indigenous knowledge and planting indigenous species in the 15 schools in the Mulshi and Mawal tehsil.	20 students and 4 staff for whole year
2019		9	January 2020 to March 2020	Say no to forest fires' campaign	Conducting community awareness programs for prevention of forest fires in Male village.	18 students and two faculty
		11	Feb-19	Blood donation camp	Blood donation camp organised by staff and students	13 students
		5	December 2019	Field visits to Zoological	Visit to industries and scientific organisations to	43 students

			and January 2020	Survey of India, Botanical Survey of India, manufac- turing industries	build an understanding of pollution control and scientific research. Pune is hub for such organisations.	
		48	Every Friday from July to Decem- ber	Fridays for Future	Generating awareness among students of the entire campus through film shows on environment, wildlife	56 students and 4 faculty

7.1.5 Human Values and Professional Ethics

Code of conduct (handbooks) for various stakeholders

Title	Date of Publication	Follow up (maximum 100 words each)

7.1.6 Activities conducted for promotion of universal Values and Ethics

Activity	Duration (from-----to----- --)	Number of participants

7.1.7 Initiatives taken by the institution to make the campus eco-friendly (at least five)

1. There is proper waste management system with segregation of dry and wet waste and students are also informed about it.
2. The building is eco-friendly with low consumption of electricity.
3. The lighting is all LED bulbs and tubes.
4. There is rain water harvesting for the building.
5. The campus is maintained green by planting ornamental garden plants and mainly some ecologically important plants as medicinal or indigenous.
6. Film show on environment awareness conducted for all colleges of the campus.
7. Students participated in the global event e-bird data compilation (compiling bird species on the campus)
8. Students are documenting the biodiversity of the campus and preparing a book –‘Prutha’

7.2 Best Practices

Describe at least two institutional best practices
Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

1. Conducting training session on transdisciplinary research methods.
2. Documentation and preparing the book “Prutha” Biodiversity of Campus.

7.3 Institutional Distinctiveness

Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust

Provide the weblink of the institution in not more than 500 words

BVIEER has been awarded the prestigious DAAD project ‘Passage to India’-II along with partners from the University of Cologne Germany. Under this program to be implemented over four years, 59 of our students will go to University of Cologne and 114 of their students will be coming to Bharati Vidyapeeth University. In the year 2019-20 16 students of BVIEER went to Germany for summer school and one faculty went to teach one course for International Masters in Environmental Sciences. Under this programme one in 2019, four teaching sessions by international faculty and two by BVIEER faculty in Cologne have been conducted. (ranging from two to three four week duration). Four Summer Schools in India involving ten international students each and ten BVIEER students each have been conducted over the year. The exploration of similar issues in Germany and India consolidates student understanding of international perspectives and governance besides challenges in these areas. They are oriented to multicultural competence and develop innovative research ideas.

Joint research projects with the University of Cologne and research dialogues with international agencies also add to the understanding of new approaches in transdisciplinary research.

BVIEER has been appointed as the Project Management Unit of National Geospatial Capacity Building Program of the Department of Science and Technology, Government of India involving 32 institutions from all over India including NITs and IIT’s. Prof. Dr. Shamita Kumar is presently the National Coordinator for this project. A dedicated portal which is first for India for networking geospatial educators and users contributing to geospatial capacity building has been set up by BVIEER for DST. (<http://dst-iget.in>). Under this in the year 2019-2032 programmes were organised across the country to enhance knowledge of use of open source GIS technologies reaching out to 1567 participants from academia, government agencies and research institutions.

8. Future Plans of action for next academic year (500 words)

- Developing a Blended Learning Approach using various online resources to provide quality teaching to students.
- Developing at least two e modules for teaching environment science and Geoinformatics.

Name _____

Name _____

Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC

_____ *** _____

Abbreviations:

CAS	-	Career Advancement Scheme
CAT	-	Common Admission Test
CBCS	-	Choice Based Credit System
CE	-	Centre for Excellence
COP	-	Career Oriented Programme
CPE	-	College with Potential for Excellence
DPE	-	Department with Potential for Excellence
GATE	-	Graduate Aptitude Test
NET	-	National Eligibility Test
PEI	-	Physical Education Institution
SAP	-	Special Assistance Programme
SF	-	Self Financing
SLET	-	State Level Eligibility Test
TEI	-	Teacher Education Institution
UPE	-	University with Potential Excellence

Best Practices

Title of the Practice Transdisciplinary research methods

1. Objectives of the Practice (What are the objectives / intended outcomes of this “best practice” and what are the underlying principles or concepts of this practice (in about 100 words)?

There is an urgent need to change established ways of knowledge production through disciplines, and widen and change, both the production of knowledge and its organization, in order to be able to understand and address future challenges. We cannot resolve any of the big challenges we face in the future with just people who have sat in silos coming together. We need young professionals who have come up in this way... to see the interconnections to work with people outside of academia to co generate new knowledge. While an interdisciplinary approach removes barriers, a transdisciplinary approach additionally seeks to create a new, unified direction with a focus on solving problems, engaging a broad range of stakeholders outside academia. In a transdisciplinary research project, representatives of different disciplines, of the private and the public sectors, as well as of civil society, co-produce knowledge on an issue. The key objective of this practice is to train students in the transdisciplinary method of research.

3.The Context (What were the contextual features or challenging issues that needed to be addressed in designing and implementing this practice (in about 150 words)?

The current structure of academia is based on disciplines where basic standards for reliable and valid methods are set. Transdisciplinary Research is defined as research efforts conducted by investigators from different disciplines working jointly to create new conceptual, theoretical, methodological, and translational innovations that integrate and move beyond discipline-specific approaches to address a common problem. Problems concerning Sustainable Urban Development are complex and can no longer be dealt only within pre-existing disciplines and structures for planning and decision-making. Scientific knowledge must be combined with other knowledge systems such as traditional and local knowledge, leading to a more effective interface between science, policy and society.

The three Master programmes conducted at the Institute i.e. M.Sc. Environment Science and Technology, M.Sc. Geoinformatics and M.Sc. Wildlife Conservation Action are inherently interdisciplinary in nature. A large body of knowledge exists in the communities outside of academia. It is imperative that students tap this knowledge to make their research relevant to the problems at hand and acceptable to the community at large.

4.The Practice (Describe the practice and its uniqueness in the context of India higher education. What were the constraints / limitations, if any, faced (in about 400 words)?

In India there have been superficial or token efforts toward fusing the natural sciences, the social sciences and humanities. If we are to stop this tokenism we need a group of teachers and students who are future professionals oriented to the art and science of transdisciplinary research. It is thus best to start from the University level research itself.

There are several constraints in this process as listed below:

The unidisciplinary approach followed and encouraged in Indian Universities is a hurdle.

A bank of examples to demonstrate the usefulness of this approach in research is necessary to convince students and faculty.

Research methods in this field are still being developed.

Complexity takes time and requires an open mind. Getting professionals from diverse disciplines to work in a single problem with diverse experts is challenging.

Understanding and being familiar with shared ownership of the process including establishing of shared digital working space is necessary.

5. **Evidence of Success** (Provide evidence of success such as performance against targets and benchmarks, review results. What do these results indicate? Describe in about 200 words.)

Transdisciplinary research takes times to take root in the minds of both teachers and students. We conducted an intensive two week workshop with Prof. Dr. Regine Schoenberg from the Free University of Berlin, Germany to orient faculty and students to this practices. A case of water use in the peri urban areas of Pune was the focus. The field work was organised to first delve into issues of the area as perceived by the various actors instead of just using literature review to identify the problem. Methods of study were discussed among the groups. This made data collection more easier. We are now in the phase of sharing our results with the various actors to devise strategies in a participatory manner. This topic involves understanding the science of water management, with social science of water use, governance and laws apart from the use of technology for ground water mapping.

A publication from this is in process.

6. **Problems Encountered and Resources Required** (Please identify the problems encountered and resources required to implement the practice (in about 150 words).

Transdisciplinary research essentially has the involvement of all the actors. This kind of research is very successful in not only generating new knowledge by harnessing the existing knowledge that exists in the community but also is useful in implementing the findings of the research. Some of the barriers are:

Putting together an interdisciplinary team.

Getting students interested in transdisciplinary research.

Language becomes a barrier as all students may not be conversant in local language.

Trust building among the various actors takes time.

Travel and meeting expenses are needed.

7. **Notes**

Optional. Please add any other information that may be relevant for adopting/ implementing the Best Practice in other institutions (in about 150 words).

The key point here is that the participation of various non-scientist stakeholders from the non-academic environment—that is, engaging in dialogue with society—is the hallmark of transdisciplinary research. Transcending the interdisciplinary, then, means transcending the academic.

The challenge is first in orienting faculty to this kind of research and then setting up small projects with students, the future scientists so that this way of knowledge generation is mainstreamed. The New Education Policy does advocate an interdisciplinary approach and integrating transdisciplinary then is far easier.

2. Title of the Practice: Prutha: A biodiversity documentation of the campus

Objectives of the Practice (What are the objectives / intended outcomes of this “best practice” and what are the underlying principles or concepts of this practice (in about 100 words)?

- Involving students to prepare a document on biodiversity of campus to be published as a book
- Scientific documentation of the biodiversity on the campus.
- Make this an ongoing activity as part of Green Campus program.

Biodiversity documentation has now assumed greater significance as ecologists try desperately to document global biodiversity in the face of unprecedented ecological degradation. Biodiversity is intrinsically valuable as a means of improving our understanding of the structure and functioning of ecological communities. Small islands of green in the cities serve as ‘steeping stones’ or ‘hot specks’ for a wide variety of fauna and play an important role in their long term survival. Documentation also helps in establishing a baseline besides charting restoration programs. Involving students in such an activity consolidates their knowledge about species, keeps them engaged productively and builds teamwork and a shared responsibility.

Bharati Vidyapeeth has a 70 acre campus at Dhanakwadi a large part of which is green with indigenous trees and medicinal plants. A large number of birds and reptiles are seen on campus. The documentation will help in

The Context (What were the contextual features or challenging issues that needed to be addressed in designing and implementing this practice (in about 150 words)?

Being an environmental institute we have students for whom wildlife is a passion. Thus we did not face any challenges in engaging them. However there were challenges in ensuring that sustained field work was done in all the seasons. Regular meetings and encouragement were used as tools to ensure this. Issues of access to certain restricted parts of the campus as well as permissions for night field work were secured. Two faculty members were associated with the group for mentoring and guidance.

Students were trained in the methodology and also taxonomic identification. Key guides and books as well as online platforms such as Whats App were used to keep the communication

flowing.

3. The Practice (Describe the practice and its uniqueness in the context of India higher education. What were the constraints / limitations, if any, faced (in about 400 words)?

This practice fits well within the initiative of the UGC for a green campus. It also fits well within the scope of the UGCs Compulsory Core Module Course on Environmental Studies. It serves as an excellent platform for involving students and igniting interest in conservation issues ensuring the true implementation of the compulsory core module course.

The constraints are in the taxonomic skills of the students and these need to be augmented by training. Association of faculty members with the team can help solve the issue. A through method also needs to be worked out to ensure scientific vigour.

6. Evidence of Success (Provide evidence of success such as performance against targets and benchmarks, review results. What do these results indicate? Describe in about 200 words.

There is documentation of more than 50 bird species, besides, butterflies, moths are documented by the group with photographs. A biodiversity map for the campus has been created. A book on the same is expected to be published by the end of the year.

7. Problems Encountered and Resources Required (Please identify the problems encountered and resources required to implement the practice (in about 150 words).

It is important to keep the activity under supervision of the faculty. There are differences of opinions among students which can get aggravated if the situation is not handled properly.

Students should be given free hand to plan their visits. . However some guidance is always important like survey dates, times and seasons.

Keeping the teamwork among the students can be challenge to prevent dropouts. Periodic meetings and encouragement can solve these issues.