The Annual Quality Assurance Report (AQAR) of the IQAC 2016-17

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. (*Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013*)

Part	_	Α
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I. Details of the Institution **TERI UNIVERSITY** 1.1 Name of the Institution 10, INSTITUTIONAL AREA 1.2 Address Line 1 VASANT KUNJ Address Line 2 NEW DELHI City/Town DELHI State 110070 Pin Code Registrar@teriuniversity.ac.in Institution e-mail address 011-71800222 Contact Nos. DR. LEENA SRIVASTAVA Name of the Head of the Institution: 011-26122222 Tel. No. with STD Code: 9811009260 Mobile:

Name of the IC	QAC Co-ordin	nator:						
Mobile:	bile: 9213373000							
IQAC e-mail	address:		akansal@teriuniversity.ac.in					
1.3 NAAC Ti	rack ID (For	ex. MHCO	GN 18879)					
This EC n	ecutive Com nple EC/32/A to. is availabl stitution's Ac	&A/143 da e in the rig	uted 3-5-200 ht corner- l	04 bottom	A/66 dated 23-0	03-2013		
1.5 Website a	1.5 Website address: www.teriuniversity.ac.in							
Web-link of the AQAR: http://www.teriuniversity.ac.in/AQAR/16-17.docx For ex. http://www.ladykeanecollege.edu.in/AQAR2012-13.doc								
1.6 Accredita	tion Details							
S1. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period			
1	1 st Cycle	А	3.26	2013	5 YEARS			
2	2 nd Cycle							
3	3 rd Cycle							
4	4 th Cycle							
1.7 Date of Establishment of IQAC : D			DD/MM/YYYY	February, 20	16			
1.8 AQAR for	the year (fo	r example .	2010-11)	2016-17				

DR. ARUN KANSAL

1.9 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC ((for example AQAR 2010-11submitted to NAAC on 12-10-2011)

- i. AQAR 2013-14 submitted on 30/11/2014 (DD/MM/YYYY)
- ii. AQAR 2014-15 submitted on 15/11/2015 (DD/MM/YYYY)
- iii. AQAR 2015-16 submitted on 27/10/2017 (DD/MM/YYYY)
- iv. AQAR______(DD/MM/YYYY)

1.10 Institutional Status				
University	State C	Central	Deemed 🖌 Priv	vate
Affiliated College	Yes	No 🖌		
Constituent College	Yes	No 🖌		
Autonomous college of UGC	Yes	No 🖌		
Regulatory Agency approved Insti	tution	Yes 🗸	No	
(eg. AICTE, BCI, MCI, PCI, NCI)				
Type of Institution Co-education	on 🖌 M	Men	Women	
Urban	✓]	Rural	Tribal	
Financial Status Grant-in-a	aid	UGC 2(f)	UGC 12B	
Grant-in-aid	l + Self Financ	ing	Totally Self-financing	✓
1.11 Type of Faculty/Programme				
Arts 🖌 Science 🗸	Commerce	Law	✓ PEI (Phys E	Edu)
TEI (Edu) Engineering	g 🖌 Healt	th Science	Management	\checkmark
Others (Specify)				
1.12 Name of the Affiliating Universi	ty (for the Col	leges)	NOT APPLICABLE	
1.13 Special status conferred by Cent	ral/ State Gove	ernment U	GC/CSIR/DST/DBT/IC	MR etc.: N.A.
Autonomy by State/Central Govt.	/ University			
University with Potential for Exce	ellence		UGC-CPE	
DST Star Scheme	Γ		UGC-CE	
UGC-Special Assistance Program	ime		DST-FIST	
UGC-Innovative PG programme	s L		Any other (Specify)	
UGC-COP Programmes				

2. IQAC Composition and Activit	<u>cies</u>
2.1 No. of Teachers	6
2.2 No. of Administrative/Technical staff	3
2.3 No. of students	NO
2.4 No. of Management representatives	5
2.5 No. of Alumni	1
2. 6 No. of any other stakeholder and	NO
community representatives	NO
2.7 No. of Employers/ Industrialists	1
2.8 No. of other External Experts	NO
2.9 Total No. of members	13
2.10 No. of IQAC meetings held :	03
2.11 No. of meetings with various stakeholders:	No. Faculty
Non-Teaching Staff \checkmark Students \checkmark	Alumni 🖌 Others
2.12 Has IQAC received any funding from UGC d	uring the year? Yes No
If yes, mention the amount	
2.13 Seminars and Conferences (only quality related	ed)
(i) No. of Seminars/Conferences/ Workshops	S/Symposia organized by the IQAC :
Total Nos. 43 International	National State Institution Level
(ii) Themes	
2.14 Significant Activities and contributions made	by IOAC

2.14 Significant Activities and contributions made by IQAC

2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year *

Plan of Action	Achievements
Report enclosed (Annexure 1)	
* Attach the Academic Calendar of t	the year as Annexure 1A.
Whether the AQAR was placed in state	utory body Yes 🖌 No
Management Syndica	te Any other body
Provide the details of the action	taken
Presented to the BoM on 24 O	ctober, 2017. Member noted the activities.
	Report enclosed (Annexure 1) * Attach the Academic Calendar of the Whether the AQAR was placed in state Management Syndical Provide the details of the action

Part – B Criterion – I

I. Curricular Aspects

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD	6		6	6
PG	13		13	13
UG	-		-	-
PG Diploma	1		1	1
(Through distance)				
Advanced Diploma	1		1	1
(Through distance)				
Diploma (Regular)	1		1	1
LLM		1	1	1
Certificate	1		1	1
Others				
Total	24		25	25
Interdisciplinary	All			
Innovative				

1.1 Details about Academic Programmes

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options (ii) Pattern of programmes:

Patte	ern		Number of	of prog	grammes	
Seme	ster	\checkmark				
Trime	ester					
Ann	ual					
olders*	Alumni		Parents		Employers	

 1.3 Feedback from stakeholders*
 Alumni
 Parents
 Employers
 Students

 (On all aspects)
 Image: Comparison of the state of the stat

*Please provide an analysis of the feedback in the Annexure 2

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

Yes, TERI University prides itself in the fact that all is programmes are aimed towards value addition in the niche area of sustainable development. Care is taken to ensure this underline theme is maintained and also programmes do have multi discipline character and skill development. The institution refers to the UGC models, national models, usually picked up from major institutions like IITs, IIMs, JNU etc. and international models while updating the curricula. Almost all courses undergo revisions so as to incorporate the last trends and research. This done through interactions with academic pears industry and the community.

1.5 Any new Department/Centre introduced during the year. If yes, give details.

Dept.of Post Graduate Legal Studies

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of	Total	Asst. Professors	Associate Professors	Professors	Others
permanent faculty	54	34	8	8	4

50

2.2 No. of permanent faculty with Ph.D.

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year	Asst. Professors		Associate Professors		Professors		Others		Total	
	R	V	R	V	R	V	R	V	R	V
	7				1		4		12	

2.4 No. of Guest and Visiting faculty and Temporary faculty 24

3

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	6	12	-
Presented papers	9	4	1
Resource Persons	2	3	-

2.6 Innovative processes adopted by the institution in Teaching and Learning:

Since its inception, the University offers not just world-class education, but also an environment that enables its students to develop fresh perspectives on their subjects of study. This includes regular interactions with researchers, scientists and academicians. The academic programmes are envisioned to have a wider approach to encourage interdisciplinary learning. The University uses modern pedagogical tools for teaching which are richly supplemented by field visits, live industry projects and hands-on applications. The University provides the very best in equipment and instruments, including state-of-the art computer hardware and software, video-conferencing facilities and a library on energy and environment. The faculty members act as guides to students, engaging them in expanding the boundaries of inquiry through minor projects, summer internships, and a semester-long major project. Guest lectures by experts in various fields are organised throughout the semesters in order to give a wider perspective to the students. The University encourages exchange of ideas, cultural understanding and a wide range of knowledge that would result from international perspectives. To achieve this, the TERI University has academic collaborations with several select foreign universities, which provide for joint curriculum development and exchange of faculty and students.

2.7 Total No. of actual teaching days

during this academic year

Approx.230

- 2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)
- 2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop
- 2.10 Average percentage of attendance of students
 - 2.11 Course/Programme wise distribution of pass percentage :

Title of the Programme	Total no. of students	Division*				
Tiogramme	appeared	Distinction %	I %	II %	III %	Pass%
M.Sc						100
MBA						100
M.Tech						100
M.A.						100
PhD						
LLM						
AP PGD						
PGD						
Certificate						

87%

* Results are based on CGPA and no distinction/division are awarded.

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes :

The i-QUAC academic assessment process aims to support the University to advance its mission of 'knowledge for sustainable development' and creating a learning community. The process of quality assurance appraisal is participatory where the members of the University can identify their own strength and weakness, learn from one another and share good practices of each academic unit within the University.

2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	
UGC – Faculty Improvement Programme (Retreat)	50
HRD programmes	
Orientation programmes (Once in a year)	12
Faculty exchange programme	
Staff training conducted by the university (Retreat, IT Training)	30
Staff training conducted by other institutions	
Summer / Winter schools, Workshops, etc. (Bliss and WASH)	10
Others	Retreat (52)

All

2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	25			
Technical Staff	9			

Criterion – III

3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

IQAC has prepared comprehensive rules and guidelines for PhD regulations as per revised UGC norms. In addition, IQAC has suggested for introduction of e-governance methods for coordination of funded projects. IQAC has recommended outcome linked incentives for research guidelines by faculty members which may be adopted by the University from 2017.

3.2 Details regarding major projects : Annexure 3 attached

	Completed	Ongoing	Sanctioned	Submitted
Number	12	24	8	8
Outlay in Rs. Lakhs	346	782	125	125

3.3 Details regarding minor projects : Annexure 4 attached

	Completed	Ongoing	Sanctioned	Submitted
Number	4	4	1	1
Outlay in Rs. Lakhs	10	6	0.50	0.50

3.4 **Details on research publications**

	International	National	Others
Peer Review Journals	85	11	
Non-Peer Review Journals	1	6	
e-Journals	85	14	
Conference proceedings	3	0	

3.5 Details on Impact factor of publications:

83

0.396- 8.05	Average

h-index

3

Nos. in SCOPUS

Range

3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations : Annexure 5 attached

2.758

Nature of the Project	Duration	Name of the	Total grant	Received
	Year	funding Agency	sanctioned	
Major projects			125	125
Minor Projects			0.50	0.50
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the				
University/ College				
Students research projects (other than compulsory by the University)				
Any other(Specify)				
Total				

3.7 No. of books publishe	d i) With ISBN No.	1 Chapters	in Edited Books	14	
	ii) Without ISBN No.	1			
3.8 No. of University Depa	artments receiving funds	s from :			
	UGC-SAP 01	CAS	DST-FIST	01	
	DPE		DBT Scheme/funds	01	
3.9 For colleges	Autonomy	CPE	DBT Star Scheme		
	INSPIRE	CE	Any Other (specify)		
3.10 Revenue generated through consultancy NIL					
3.11 No. of conferences or	ganized by the Institution	on			

State College Level International National University 8 23 Number DST-SERB Sponsoring USAID, UNEP, University of agencies UK, IDRC-Canada, DAAD, Global RUB, Embassy of Kazakhstan, Challenge ICEWARM, UNU Foundation, Cross-CARIAA, HUDCO, MoES

3.12 No. of faculty served as experts, chairpersons or resource persons 13					
	8	1		4	
3.13 No. of collaborations	International	National	Any other		
	13]			

3.14 No. of linkages created during this year

3.15 Total budget for research for current year in lakhs :

From Funding agency	500 L	From Management of University/College	07.00 L
Total	507.00 L		

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	
National	Granted	
Testerment's mel	Applied	NII
International	Granted	NIL
Commonoiolicad	Applied	
Commercialised	Granted	

3.17 No. of research awards/ recognitions received by faculty and research fellows Of the institute in the year

Total	International	National	State	University	Dist	College
5	5	-	-	-	-	-

3.18 No.of faculty from the Institution who are Ph. D. Guides and students registered under them

32

12

3.19 No. of Ph.D. awarded by faculty from the Institution

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF 3 SRF 7	Project Fellows Any other
3.21 No. of students Participated in NSS events:	N.A.
	University level State level
	National level International level
3.22 No. of students participated in NCC events:	N.A.
	University level State level
	National level International level
3.23 No. of Awards won in NSS: N.A.	
	University level State level
	National level International level
3.24 No. of Awards won in NCC: N.A.	
	University level State level
	National level International level
3.25 No. of Extension activities organized :	N.A.
University forum College	forum
NCC NSS	Any other

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility (Annexure 6).

Criterion – IV

4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	2 acres			2 acres
Class rooms	10	2	University Fund	12
Laboratories	8	1	University fund	9
Seminar Halls	1			1
No. of important equipments purchased (\geq 1-0 lakh) during the current year.	As per Balance Sheet (Annexure 7)	42	Own resources & MHRD	77.09
Value of the equipment purchased during the year (Rs. in Lakhs)	As per Balance Sheet (Annexure 7)	335	Own resources & MHRD	118.25
Others				

4.2 Computerization of administration and library :

Academic, Administration & Library processes are computerized.

4.3 Library services: (as on 30 June 2017)

	Exis	sting	Newly	added	To	otal
	No.	Value	No.	Value	No.	Value
Text Books	4739	6289	289	336	5028	6625
Reference Books	379	384	9	9	388	393
e-Books						
Journals	5		1		6	
e-Journals	30				30	
Digital Database	5		1		5	
CD & Video	202	301	17	17	219	318
Others (specify)						

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Depart- ments	Centres
Existing	116	1	45 Mbps		1		06	02
Added	54							
Total	170							

4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)

Regular Training organised by the IT Department on existing systems and new systems (as and when added)

4.6 Amount spent on maintenance in lakhs :

i) ICT	Rs.18.38
ii) Campus Infrastructure and facilities	Rs.125.16
iii) Equipments	Rs.102.84
iv) Others	Rs.45.01
Total :	Rs.291.39

Criterion – V 5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

On advice of IQAC the University organized one-week orientation /induction programme for freshers. The orientation programme aims to enable students to get to know the university and the community. An interaction with various university authorities is held to convey University's efforts to continue to facilitate resources in form of library workshop, laboratory & IT enabled services to support the academic endeavours of the students. A soft copy of the student's hand book is provided and key highlights of the handbook is discussed briefly. Students are encouraged to avail various channels for basic communication in the university and intimated that the University practices and encourages open door policy. During the Orientation programme workshops on team building and orientation for sustainable development are held to equip students with necessary skills to help students go through the impending academic rigour.

5.2 Efforts made by the institution for tracking the progression :

The students play a major role in the quality of education imparted the TERI University and their progression is monitored through a robust process. This is done through the feedback mechanism which is administered for each course twice a semester i.e. on a three-monthly basis. This feedback is studied by the respective Deans and is then fed back to the Departments for incorporation if considered necessary. The feedback process is constantly reviewed by the Deans and Heads of the Departments. Besides this, the University follows a very open system of approach where suggestions and complaints can be brought by the students to any level of the administration at any time. Being a relatively small University, it has been fairly easy to build relationships within the student body as well as between the students and the management. A constant interaction between the faculty and the students, Heads/Deans/Registrar and students ensures that students are able to openly express their minds and come up with fresh ideas



Demand ratio 1363/297 Dropout % : 1.3

5.4 Details of student support mechanism for coaching for competitive examinations (If any) NA

No. of stu	idents bene	eficiaries]			
5.5 No. of stude	ents qualifi	ed in these exa	aminations				
NET	3	SET/SLET		GATE	1	CAT	
IAS/IPS etc		State PSC		UPSC		Others 3	

5.6 Details of student counselling and career guidance

The students are counselled from day one with orientation programme at the beginning of each academic year. This is followed by programme specific orientation programme conducted by the Head of Department and all faculty members of the department under which the particular programme is offered. This usually begins with stating the overall objectives of the programme and how each semester is academically linked with the subsequent semesters. Relevance to different courses and electives is also provided by programme coordinator along with the Head of the Department. Each programme has its own placement coordinator which is a faculty member, the placement coordinator along with the Placement & External Relations Officer regularly provide career related guidance and counseling to the student on regular basis. This also includes guidance related to summer internship, major project and final placement.

Workshop for CV, soft skills was scheduled for students. Sessions from representatives from organisations like KPMG, India Infrastructure, Idam Infrastructure, HCL Foundations were also scheduled.

No. of students benefitted



5.7 Details of campus placement

	On campus		Off Campus
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
85	151	67	23

5.8 Details of gender sensitization programmes

To sensitize the TU community on diversity, equality and inclusion, a talk was organized on "Women's Movement(s): Questions of Equality and Difference" by Dr Rukmini Sen, Associate Professor, School of Liberal Studies, Ambedkar University on 12.04.2017.

5.9 Students Activities

5.9.1	No. of students participate	ed in Sp	orts, Games and o	ther even	nts : N.A.	
	State / University level		National level		International level	
	No. of students participate	ed in cu	ltural events : Int	t <mark>ra-dep</mark> a	rtmental	
	State/ University level		National level		International level	

5.9.2 No. of medals /awards won by students i	in Sports, Games and other events : N.A.
Sports : State/ University level Natio	onal level International level
Cultural: State/ University level Natio	onal level International level
5.10 Scholarships and Financial Support	
	Number of Amount students
Financial support from institution (IGC)	6 Rs.655954/-
Financial support from Government	11 Rs.3538208/-
Financial support from other sources (CSLA)	8 Rs.7789022/-
HSBC	5 Rs.1116968/-
SCCF	8 Rs.2944613/-
ICIMOD	5 Rs.675420/-
Number of students who receive International/ National recognitions	ed
5.11 Student organised / initiatives :	
Fairs : State/ University level 6 Natio	onal level International level
Exhibition: State/ University level Natio	nal level International level
5.12 No. of social initiatives undertaken by the stu	idents 1

5.13 Major grievances of students (if any) redressed: Better internet connectivity

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

The TERI University aspires to contribute globally by serving society as a seat of advanced learning and to promote learning through teaching and through creating and sharing knowledge. The University commits itself to academic excellence and an environment which would encourage personal and intellectual growth.

The TERI University provides world-class facilities and resources to its students and faculty so as to usher in innovative and multidisciplinary research.

6.2 Does the Institution has a management Information System

Yes, University Management System

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

Curriculum is designed by the departmental faculty members in consultation with specialists from Industry/Academia/R&D. The curriculum is then reviewed by Board of Studies (BOS), consisting of faculty and external domain experts. The recommendations of the BOS are presented to academic council for approval. Based on inputs received through feedback system the curriculum is appropriately improved where required. Industry experts and experts from other institutions e.g. consultancies, donor agencies, multilaterals etc. are involved in the curriculum design. This ensures that the market needs are built into the curriculum. This, in a sense, ensures that the learning outcome and the skill developed through programmes at the TERI University cater to specific needs of the market. This ensures employability to a large extent. Further, being a research University, a lot of importance is laid on orienting students towards research and guiding them into this area. From the inception stage itself, the TERI University has focused on global perspectives being built into the curriculum in each of the programmes. These are achieved through a number of collaborations with foreign Universities and institutions. This facilitates continuous exchange of knowledge and ideas between faculty members at those institutions and at the TERI University. Also the large number of international projects with which TERI is associated gives a feed back to the University on global trends in various areas of sustainable development. These are then integrated into the curriculum.

6.3.2 Teaching and Learning

Almost all the courses have a underlying theme related to sustainability Development. Researchlead and practice-based teaching-learning system is practiced in the University. The University offers not just world-class education, but also an environment that enables its students to develop fresh perspectives on their subjects of study. This involves regular interactions with researchers, scientists, experts and academicians. The university harnesses the best of modern technology to support the intellectual curiosity of its students and faculty. The academic programmes are envisioned to provide students a holistic perspective of the subject at hand and have a wide approach to encourage interdisciplinary learning. The University uses modern pedagogical tools for teaching which are richly supplemented by field visits, live industry projects and hands-on applications. The University has a system of quality assurance and quality enhancement through the involvement of academic peers and industry experts.

6.3.3 Examination and Evaluation

The programme and course outlines for each of the programmes are provided to faculty and students periodically at the commencement of the semester. The evaluation criteria listed in the course outlines clearly mention quizzes/assignments/minor tests/final examination/presentation (weightage) given in the evaluation process. The evaluation criteria for the MA (Public Policy& Sustainable Development) course has been reviewed and newer evaluation criteria have been recommended for the course commencing academic year 2017. The format of the evaluation criteria includes evaluation based on class discussion, presentation, book review and article review. The academic calendar includes the date of the examination results, which is normally done within 20 days of the final examination. Any delay in scheduled timeline is conveyed to the student community through email. The results are made available to the students individually through their personal accounts on university online portal. The evaluation procedures are extremely transparent. Test papers are always shown to the students.

6.3.4 Research and Development

Department/Centre research committees have been constituted under the HODs to prepare and periodically review the research plans of the department/centres, such that they align with the overall vision of the university. Similarly, at the university level the sponsored research and development board headed by Dean-Research and relationships discusses and periodically reviews the overall research objective of the University. These bodies monitor research across the University at different levels. In addition, students research at the doctoral level is monitored and facilitated by Students Research Committees which are constituted for each doctoral student.

6.3.5 Library, ICT and physical infrastructure / instrumentation

Since its inception, the University offers not just world-class education, but also an environment that enables its students to develop fresh perspectives on their subjects of study. The University provides the very best in equipment and instruments, including state-of-the art computer hardware and software, video-conferencing facilities and a library on energy and environment. Digital resources are centrally organized and available to students, researchers, and faculty via single-window access on their desktops. It supports generation and use of information for updating knowledge regardless of form or format. The web interface provides flexible access to several electronic books, journals, databases, TERI University Ph.D. theses, photographs, newspaper clippings and multimedia resources. It serves as a one-stop shop where users find links to digital services and resources all in one place. It is also a tool for integrating both printed and electronic resources. Services such as electronic alerts and selective dissemination of information are also available. The Library is equipped with the latest tools and techniques to collect, store, retrieve and disseminate information. User terminals in the library permit access to the library resources and services. The library uses bar-code technology that enables automated circulation and management of resources. The library uses the web-enabled digital information system as a communication tool for providing the updated information about other libraries, list of journals, CDs, links to e-resources, news about special programs, events, feedback, and information about the library.

6.3.6 Human Resource Management

A career progression scheme ensures rewarding competent faculty through higher promotion/re-designation. Role related rewards (RRR) and outcome linked awards (OLA) have been instituted to recognize efforts put in by faculty members in academic administrative functions and also to recognize outstanding contributions in terms of teaching, research or other contributions. The overall HR policy, while addressing motivational needs of the faculty aims to bring out high quality of contribution from faculty which intends to meet the changing requirements of the curriculum. The administrative staff was on deputation from TERI to TERI University as per the MoU. For better resource management, permanent support staff posts have been created and from June 2017 all staff on deputation were taken on the rolls of the University against the posts created on UGC pay scales.

6.3.7 Faculty and Staff recruitment

TERI University follows an open system of recruitment, where applications are invited from a candidates from anywhere in the country. Posts are also advertised in journals and other publications abroad so as to give an exposure to the vacancies in outside institutions In the year 2016, 1 lecturer and 8 Assistant Professors were recruited by the University.

6.3.8 Industry Interaction / Collaboration

Industry experts and experts from other institutions e.g. consultancies, donor agencies, multilaterals etc. are involved in the curriculum design which ensures that the market needs are built into the curriculum. This, in a sense, ensures that the product of students created through programmes at the TERI University cater to specific needs of the market. This ensures employability to a large extent. Also to be noted is the fact that being a research University, a lot of importance is laid on orienting students towards research and guiding them into this area. Collaboration with Anant Technology Ltd. and Environment Protection Training and Research Institute (EPTRI), Hyderabad worked out in this year will help in academics and research on various dimensions of Sustainability Science.

6.3.9 Admission of Students

TERI University is an inter-disciplinary university committed to sustainable development. All programmes offered and the research undertaken broadly comes under the umbrella of sustainable development. This aspect is, therefore, kept in mind in the admission process. Most of the programmes are inter-disciplinary in nature and, therefore, students from different disciplines, meeting the minimum eligibility requirement for a particular programme are encouraged to apply to the various programmes. The students are admitted through a common entrance examination followed by an interview in all the programmes; group discussion is an additional component for the management programmes. The entrance examination comprises of proficiency in language, quantitative and analytical skills. The marks scored in the entrance examination are given certain weightage which varies from department to department. Subsequent to the entrance examination the candidates are interviewed in which their subject knowledge, relevant to a particular programme is tested by a panel of experts. Certain weightage is given to the interview which also varies from department to department. In the Academic year 2016-17, 1363 no. of applications were received and 297 were given admission.

6.4 Welfare schemes for

Teaching	Medical insurance, gratuity, Provident fund, loans, sabbatical leaves, salary advance, study leaves,
	house lease, flexi timings
Non teaching	Medical insurance, gratuity, Provident fund, loans,
_	salary advance and house lease
Students	Bank loans, scholarships, internal grants (travel)

Yes

No

6.5 Total corpus fund generated

Rs.1887 Lacs

6.6 Whether annual financial audit has been done

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

Audit Type	E	xternal	Inte	ernal
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	BoS/AC	Yes	BoS/AC
Administrative	Yes	Sanjay Rastogi & Associates, New Delhi	Yes	Rajan K Gupta & Co., New Delhi

6.8 Does the University/ Autonomous College declares results within 30 days :

For UG Programmes (N	.A.) Yes		No	
For PG Programmes	Yes	\checkmark	No	

6.9 What efforts are made by the University for Examination Reforms?

This evaluation system is only a guideline and is not rigid. This would include open book examination, take home examinations, presentations etc. Faculty member are free to modify these evaluation systems depending upon the needs of the course. However, this needs to be approved by the Academic Council and informed to the students before the commencement of the course. The University followed a continuous evaluation system. This is done through, typically, two mid semester examinations, one final semester examination, quizzes, class Evaluation and grading is done by the faculty coordinator of each assignments etc. programme. This is then reviewed by the Masters Programme Executive Committee. Mid term examination results are usually declared within 10 days of the examination. Final grades at the end of the semester are usually declared with 3 weeks of the date of the last examination. The evaluation method in each course is communicated to the students at the beginning of each semester. This is mandatorily a part of the course outline, which is given to each student every semester. The evaluation procedures are extremely transparent. Test papers are always shown to the students. Marks assigned for presentations/assignment etc. are also passed on to the students.

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

N.A.

6.11 Activities and support from the Alumni Association

Alumni Association has helped in strengthening the alumni network and supported by creating and connecting TU with relevant opportunities for students. Alumni have been sharing lot of internship and employment opportunities for their juniors. They also help in connecting TU within their own network. In fact, there are some alumni, who themselves recruit intern and employees for their own team and projects. Alumni also share their experiences and inputs during the curriculum revision for a particular program. They also visit TU campus for interactive session with the students and share their experience, learnings with them.

6.12 Activities and support from the Parent – Teacher Association

Being an institution of higher learning, and since the University offers only masters and doctoral level programmes, interaction with the parent is intentionally kept at a low level. Parents have been involved only on occasional instances, either in extremely poor performance or in disciplinary issues.

6.13 Development programmes for support staff

TERI University being a small, niche area University, the management interacts with the staff on a daily basis. The issues discussed range from academic work being carried out, administrative issues, and growth of the University. For efficiency improvement, training programmes are held during the term end on various issues like leadership, time management etc

6.14 Initiatives taken by the institution to make the campus eco-friendly

1) LED lighting of the entire Campus

- 2) Thesis in Electronic formats
- 3) Sensitizing students & faculty members on eco-activities
- 4) Wind turbines

Criterion – VII

7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

Environmental Laws and Infrastructure laws are two emerging fields in legal practice. There is a dearth of qualified legal professionals in both these fields. It is in this context that TERI University introduced a one year LLM programme with specialization in Environment and Natural Resources Law; and Infrastructure and Business Law. Besides its focus on Masters programme, University also conducted national level workshops on related subjects. The primary focus of the programme has been to create qualified legal professionals in the specific areas who will have insights into fundamental legal concepts related to environmental and natural resources law and infrastructure and business law.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

Based on the projected plans for the University the Academic Council and the Board of Management carried out detailed review of the curriculum and institutional policies.

A comprehensive road map was prepared and a Project Management Committee was constituted for implementation of plans for the upcoming campuses at Guwahati and Hyderabad.

As planned, new facilities were created by proposing existing areas and renovating them for teaching space, laboratory, faculty office and medical room.

IT enabled services were upgraded to facilitate better access while following latest standards and reliability.

The University marked a clear shift of focus towards employee welfare and a permanent cadre of employees were set up and a new cadre was extended sixth pay commission scales.

7.3 Give two Best Practices of the institution (please see the format in the NAAC Self-study Manuals)

7.3.1.1 **Title of the practice:** Regular review of curriculum.

7.3.1.2 **Objectives:** In the field of higher education specially in research universities, it is very important that the teaching curriculum includes the latest advances in research. This is happening with the regular review of curriculum being taken.

7.3.1.3 **Context:** The major challenge is tendency to find an easy way out and continuing with the previous curriculum. This has been overcome with sensitizing all faculty members for a need for a regular review. It is also very important that the faculties own research be incorporated into the teaching curriculum. This has necessitated stressing on the need for regular research and publishing by the faculty members. This aspect has also been incorporated into the appraisal system for faculty members.

7.3.1.4 Indian higher education generally follows a practice of review of curriculum every 3-4 years. At the TERI University stress has been laid on a review of curriculum every year so as to bring in currency in its research inputs. Constraints/limitations included with the experience of younger faculty members which was overcome with a large amount of mentoring and guidance by the experienced faculty members.

7.3.1.5 **Evidence of success:** The Academic Council of the University has approved and appreciated a regular review of the curriculum. Besides this other stakeholders including prospective employer of the student have found these reviews useful in developing capacities in graduating students.

7.3.1.6 **Problems encountered:** The only problem encountered was the requirement to stress amongst faculty members on the need for regular research and publishing. This is an important aspect in any academic research institution. This was easily overcome through mentoring and guidance by the senior faculty members.

7.3.2.1 **Title of the practice:** Outreach through School - University Network (SUN). TERI University, one of the pioneering universities in the field of Sustainable Development education, in its endeavor to promote networking with all potential stakeholders including school children, has initiated the School University Network (SUN).

7.3.2.2 **Objective:** The key objectives of this initiative are stated below.

-Provide comprehensive understanding on key SD issues

-Offer ways and means to adopt sustainable lifestyles

-Offer different ways to see the world in terms of the goals of sustainable development. -Be the champions of sustainability-centric development ideas and practices

7.3.2.3 **Context:** The SUN endeavor is built on the understanding that existing school curriculums inadequately cover sustainability related issues in tune with complexities of development. The proposed SUN initiative is aimed at bridging the gap.

The School-University Network (SUN) welcomes Higher Secondary level students based in Delhi NCR to visit TU in enhancing the academic collaboration on five broad areas. These include: Climate change; Energy efficiency; Waste management; Water management; and Urban Sustainability. This initiative, guided by faculty members of TERI University, and driven by the Doctoral & Masters Students of TU, is a unique initiative to excite and ignite passion in participating school students in various areas of sustainable development.

7.3.2.4 **Practice:** The half day programme are being conducted in TU, Vasant Kunj with batches of higher secondary (HSC) level students (both class 11th and class 12th) or high school students (classes 9th and 10th). The school selects a batch of students (a maximum of 40 - 50 students will constitute a batch) to visit TERI University for the interactive session on one specific theme on SD. Multiple pedagogical tools (interactions with the trainers, discussion centric deliberations; documentaries, various experiential and visual methods of learning); are being used to train them on the chosen theme.

7.3.2.5 **Evidence of success:** A total of 28 schools have participated in the SUN programme as on date.

7.3.2.6 **Problems encountered and resources required:** TERI University's Doctoral and Masters Students act as trainers/instructors for the programme. However, the broad guidance is being provided by TERI University faculty members/ Programme

*Provide the details in annexure (annexure need to be numbered as i, ii,iii)

Report of Enviro	onment Audit (Annexure 6)		
7.5 Whether environment	tal audit was conducted?	Yes 🖌 No	
7.6 Any other relevant inf	formation the institution wishe	s to add. (for example SWOT Analysis)	
Opportunity			
	attract large number of internat	(futuristic) sustainability education ional students	
 Scope for gree 	eater linkage with industry		
	cess to education in niche areas g the alumni network	s for all sections of society	
	5 the transmission of the		
Challenges	ademic and organisational lead	lershin	
 Attracting and 	d retaining good faculty		
	f research culture amongst all t		
environment		ntly changing global and competitive	
 Improving the 	e placements of graduating stu	idents	
these become part of	f the smart cities campaign of programmes and research ob	city in focusing on sustainability so that the government. jectives for the upcoming campuses at	
Name ARUN	KANSAL NO	me LEENA SRIVASTAVI	ŧ.
Anun Kan	isel	Lean Divestor	
Signature of the Coordina	ıtor, IQAC	Signature of the Chairperson, IQAC	
8	***		
			-
Revised Guidelines of IQ.	AC and submission of AQAR	Р	age 2

Annexure 1



REPORT OF I-QAC

TERI University

AUGUST, 2016

- 1. Dr.Suresh Jain
- 2. Dr.Prateek Sharma
- 3. Dr.Sapna A Narula
- 4. Dr. Sitaraman Ramakrishnan

Areas of assessment

- 1. Curricular aspects
- 2. Teaching Learning and Evaluation
- 3. Research Consultancy and Extension
- 4. Innovations and best practices

1. <u>Activities & Contribution</u>

- 1.1 Review of policies carried out.
- 1.2 The i-QAC academic assessment process aims to support the University to advance its mission of 'knowledge for sustainable development' and creating a learning community. The process of quality assurance appraisal is participatory where the members of the University can identify their own strength and weakness, learn from one another and share good practices of each academic unit within the University.
- 1.3 As an integral part of achieving the goal, i-QAC followed a process which has three stages. Stage I is the review and verification of the action taken on the findings of I-QAC. **Stage II** is working on rules, guidelines and procedures for areas of improvement identified in State I. **Stage III** is more objective where each academic unit (or Department) was audited on its academic performance on criteria as defined by NAAC.
- 1.4 The I-QAC carried our review of academic and non-academic staff.
- 1.5 I-QAC recommend introduction of short term training programme.

2. <u>Policies Reviewed</u>

2.1 I-QAC inspected and verified various documents on the action taken by TERI University on its recommendations in the year 2015. Status of action taken is given below:

S.				
No	Date		Policy	Remarks
		TU/AC		Rules related to PhD Programmes
1	26.11.2015	37.8	PhD Regulations	offered by TU
2	30.06.2016	TU/AC	TU Policy on Post-	The rules and regulations applicable to
		38.7.1	Doctoral positions	all categories of Postdoctoral scholars
				working in the TU
		_	Policy on award of the	The award conferred on academic or
		TU/BM	title of Emeritus	research staff for distinguished services
3	12.02.2016	19.4.1 (f)	Professor	extended at TU
4	12.02.2016	TU/BM	TU Policy on	This policy is about the structure at TU
		19.4.1(e)	Equality, Diversity	which applies equally to all aspects of
			and Inclusion, 2015	the activity including recruitment &
				selection, promotion, the
				teaching/learning process, dignity at
				work, grievances, sickness & absence,
				conduct, terms & condition of service
				and reasons for termination etc.

5	12.02.2016	TU/BM	Policy & Guidelines	This policy deals with the rules and					
		/19.4.1(for the Prevention,	regulations to take action against the					
		d)	Prohibition and	sexual harassment taking place within					
			Punishnment Sexual	the TERI University campus, hostels, any					
			Harassment of	place visited by the employee or the					
			Womnen, 2015	student as part of the official duty.					
6	30.05.2016	TU/BM	Memorandum of	Memorandum of Association					
		20.3.1	Association/Rules	(Conforming to UGC - Deemed to be					
				University Regulations, 2016)					
7	30.05.2016	TU/BM	Policy on dealing with	Rules and regulations related to all					
		20.4.1	the Student	disciplinary cases involving Students					
			Disciplinary Case	(including regular and distance learning					
				mode) based within the campuses,					
				hostels, or any other location visited by					
				the student for educational purpose					
				facilitated by the TU.					
8	30.05.2016	TU/BM	TERI University Rules	Rules about the structure of the					
		20.3.1		University, roles and responsibility as					
				per the UGC guidelines (deemed to be					
				University) Regulations, 2016 to be					
				followed.					
9	18.07.2016	TU/100	Policy on	The processes required to maintain high					
		/VC/	Informnation	quality of web content and digital as well					
		Policy/	Publication Procedure	as print publications for the University.					
		4							
10	18.07.2016	TU/100	Policy on in-campus	TERI University offer internship					
		/VC/	internship at TERI	opportunities to students and young					
		Policy/	University	professionals to participate in ongoing					
		3		research projects undergo mentorship by					
				faculty and participate in various					
				developmental initiatives at the					
				University.					

3. <u>Academic Assessment of the University</u>

Criteria	Key features	Suggestions for improvement
Curricular aspects	The university has a robust procedure and strict adherence to it for curriculum design and development, its planning and implementation. Lots for flexibility has been given to course coordinators to decide evaluation methods, include latest literature and tweaking the course contents upto 20% to cater to new knowledge emerged in the subject area. Feedback from students is taken twice during a semester.	The University should also document the feed from employers after passage of six months when a student is employed by a company. This will provide better understanding of the relevance and effectiveness of programme objectives and its delivery.

Teaching – Learning and evaluation	All classes have good representation of students from different geographies and disciplines. At the end of the programme, students coming from different disciplines are found to have attained same level of skills and expertise.	The university should have a clearly defined procedure to document teacher's response on student's feedback and to have a mechanism to monitor teacher's performance in subsequent semesters in the areas that required improvement. Policies and mechanisms to ensure quality in teaching are not clearly defined.
Research consultancy and extension	The university provides an excellent enabling environment to its faculty members to pursue research and consultancy. Collaborations with eminent institutions provide opportunity to hone skills and expertise while doing a project. Research publication per faculty member is comparable to world class institutions.	Each Department should bring out its research brochure defining their field of concentration and impact of research work carried out in the past.
Innovations and best practices	Few patents have been filed by the University. It has also innovation hub. Some students of the University have become entrepreneurs.	Activities on incubation and start-up should be carried out in a structured manner and human resources be deployed for this purpose.

4. <u>Plan of Action</u>

On completing academic appraisal of all programmes of TERI University, following are the suggestions for improvement.

- 4.1 Feedback from employers of TERI University student is yet to be complied with.
- 4.2 Each Department should maintain a repository of research publications of faculty and students of their department.
- 4.3 Annual reports of various committees functional in the university are not found and should be available.
- 4.4 The University may consider engaging education consultant for marketing of its programmes.
- 4.5 Data and records of participation by students in other organisations should be maintained by each Department.
- 4.6 Calendar of outreach activities, training programmes and workshops should be made similar to the academic calendar in the beginning of the academic year.
- 4.7 Information of software and number of licences used in education programmes should accessible publically.

- 4.8 Funds by IGC should also support the cost of Patent filing by its faculty members.
- 4.9 Project management system of the university should be integrated with UMS.
- 4.10 Benchmarking of activities and academic indicators for appraisal system.

Sl. No.	Event	Dates
1	Curriculum coordination meeting	8 – 10 June 2016
2	Orientation and registration for 1st semester 2016/17 - Ph.D., M.Sc., M.B.A., M.A., M.Tech and LLM Programmes	25 July 2016
3	Commencement of classes	26 July 2016
4	First minor tests	29 August – 3 September 2016
5	Display of marks – first minor tests	10 September 2016
6	Study tours (where relevant)	3 – 8 October 2016
7	Break	9 -16 October 2016
8	Second minor tests	24 – 29 October 2016
9	Display of marks - second minor tests	31 October 2016
10	Alumni Meet 2016	6 November 2016
11	Curriculum coordination meeting	16 – 18 November 2016
12	Last day of classes	26 November 2016
13	Final tests	28 November – 10 December 2016
14	MPEC meetings	26 December 2016
15	Display of grades	30 December 2016
16	Meetings of SRCs (Post Comprehensive)	19 – 21 December 2016
17	Meetings of SRCs (Pre Comprehensive)	21 - 23 December 2016
18	Registration for second semester	2 January 2017
19	Commencement of all classes & second semester	3 January 2017
20	First minor tests	6 – 11 February 2017
21	Display of marks - first minor tests	17 February 2017
22	Study tours + Mid semester break	26 February – 5 March 2017
23	Open week for parents and prospective students to meet VC/Registrar/Faculty members	27 – 31 March 2017
24	Second minor tests	27 – 31 March 2017
25	Display of marks – second minor tests	08 April 2017
26	Last day of classes	29 April 2017
27	Final tests	01 – 13 May 2017
28	MPEC meetings	29 June 2017
29	Display of grades	05 July 2017
30	Meetings of SRCs	17 – 21 July 2017
31	Orientation and registration for first semester 2017/18	24 July 2017
32	Commencement of classes	25 July 2017

A. NOTE : Feedback from Employers are obtained with respect to students who are engaged in internship work or are involved in major projects under corporate bodies. Feedback is enclosed herewith (Excel File Name – 2016-17)

S. No	Nam e of the Orga nizat ion	Desig natio n	Purp ose of Cam pus Visit	Are a of Inte rest	Position of recruitment		Feedb	ack				Will ing to com e bac k	Are TU course relevan t	Shar ed exper ience	Suggestio ns
1	India Infras tructu	Direc tor	Final Place ment	Res earc h	Associate	PARAMMETERs	Exce llent	Ve ry Go	Go od	Av er ag	Poor	Yes	Yes		Students should be more
	re Publi					Writing		od ✓		e					focussed and little
	shing					Communication		· •							less
						Analytical thinking		· •							casual.
						Attitude		-		~					
2	Mahi ndra Life Spac	Head HR	Majo r Proje ct	Car bon Mo bilit	Intern	PARAMMETERs	Exce llent	Ve ry Go od	Go od	Av er ag e	Poor	Yes			
	es		Ct	у		Knowledge		v √		t					
						Communication			~						
						Growing			~						
						Passion for sustainability		~							
3	KPM G Glob al	Assist ant Mana ger	Final Place ment		Business Associate	PARAMMETERs	Exce llent	Ve ry Go od	Go od	Av er ag e	Poor	Yes. Ofc ours e.	Yes	Very Good	
	Servi ces					Communication			~			This is one of the pres			
	003					Attitude			~						
						Personal Attributes			~						
												tigu os plac e we wou ld like to visit alwa ys			
4	KPM G	Mana ger HR	Final Place ment	Rec ruit men t	Business Analyst	PARAMMETERs	Exce llent	Ve ry Go od	Go od	Av er ag e	Poor	Yes	Yes	Good qualit y of stude	N.A. Perhaps we could also
														nts in the	expose them to
														Econo	Business
														mics backg round	Platforms, real world solution solving techniques and some experience /internship s with a corporate/

Employer Feedback(Campus Placement):-

5	Shakt i Pump	Gener al Mana	Final Place ment	Rec ruit men	Management Trainee	PARAMMETERs	Exce llent	Ve ry Go	Go od	Av er ag	Poor	Yes	Yes	It was wond erful.	consulting co. may help. We have that part in the students were mostly theorotical Try to have the full																						
	s (Indi a) Ltd.	ger		t		The approach to BDM	~	od		e				Woul d like to come	strength of course.																						
						Communication skills		~						back																							
						Subject Knowledge			~																												
						Knowledge of attributes only			~																												
6	India Infras tructu re	Direc tor	Final Place ment	Res earc h	earc	earc	earc	earc	earc	earc	earc	earc	earc	earc	earc	earc	earc	Research Associate	PARAMMETERs	Exce llent	Ve ry Go od	Go od	Av er ag e	Poor	Yes	Yes	Has been good in the										
	Publi shing Pvt Ltd					Written Communication skills				~				last four years but																							
						Content of Write ups				✓		~																								has been disap pointi	
						Awareness on latest developments in the energy sector				~				ng this year. Stude nts were																							
														not well infor med about the devel opme nts in the																							
														energ y sector																							

B. NOTE : Student's feedback is obtained online with respect to various curricular aspects of the programmes on two occasions in an academic year. Analysis of feedback with respect to faculty is attached herewith:-

		NAME OF			
S.NO.	COURSE	FACULTY	TOTAL	STUD	WTG
1	Principles of geoinformatics(NRE 172)	XXXXXXXX	67	41	1.29
	Business and taxation laws in infrastructure projects(MPL				
2	142)	XXXXXXXX	5	4	2.67
3	Molecular plant physiology and metabolism(BBP 156)	XXXXXXXX	19	16	2.8
4	Contracts Law and Management(MPL 144)	XXXXXXXX	5	4	2.87
5	Production and operations management(PPM 187)	XXXXXXXX	24	17	3.13
6	Plant biotechnology laboratory - Part 2(BBP 102)	XXXXXXXX	19	16	3.15

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7	Quality Management(BSI 184)	xxxxxxxx	8	3	3.18
8	Regeneration and City Competitiveness(MEU 154)	XXXXXXXX	12	11	3.27
9	Digital image processing and information extraction(NRG 172)	xxxxxxxx	13	10	3.31
10	Urban Ecology and Environment(MEU 121)	XXXXXXXX	15	12	3.34
11	Corporate Finance(BSI 126)	XXXXXXXX	8	4	3.4
12	Water resources economics(WSW 146)	XXXXXXXX	15	11	3.41
13	Applied numerical methods (thru MATLAB)(ENR 172)	XXXXXXXX	36	30	3.45
	Basic course in environmental and resource economics(NRE	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			0110
14	141)	XXXXXXXX	40	36	3.48
15	Optimization techniques for water management(WSW 173)	XXXXXXXX	9	6	3.48
16	Economics of natural resources(MPE 146)	XXXXXXXX	37	31	3.49
17	Photogrammetry(NRG 170)	XXXXXXXX	12	12	3.5
18	Key concepts of cultural and political ecology(MPD 126)	XXXXXXXX	24	24	3.56
19	Technical Writing (Communication skills and technical writing)(NRE 101)	xxxxxxxx	104	81	3.59
20	Telecommunication law(MPL 161)	XXXXXXXX	3	3	3.6
21	Bioinformatics and computational biology - Part I(BBP 174)	XXXXXXXX	19	16	3.63
22	Renewable energy conversion technologies - I(ENR 124)	XXXXXXXX	36	31	3.64
23	Biodiversity assessment and conservation(NRE 123)	XXXXXXXX	31	26	3.71
24	Management of development organizations(MPD 153)	XXXXXXXX	31	24	3.74
25	Electricity law, reforms and practice(MPL 163)	XXXXXXXX	3	3	3.76
26	Solid and hazardous waste management(NRE 189)	XXXXXXXX	43	42	3.77
27	Digital image processing and information extraction(NRG 172)	xxxxxxxx	13	12	3.79
28	Economics of Infrastructure and Pricing Strategies(BSI 124)	XXXXXXXX	8	3	3.82
29	Water security and conflict management(WSW 182)	XXXXXXXX	19	14	3.84
30	Principles of geoinformatics(NRE 172)	XXXXXXXX	67	58	3.85
31	Forest law and policy(MPL 158)	XXXXXXXX	5	3	3.87
32	Legal aspects of bidding and public private partnership(MPL 148)	xxxxxxxx	5	4	3.88
33	Renewable energy conversion technologies - II(ENR 126)	XXXXXXXX	36	30	3.89
34	Fluid mechanics and turbomachinery(ENR 139)	XXXXXXXX	36	30	3.9
35	Geoinformatics for Urban Development(MEU 172)	XXXXXXXX	13	12	3.9
36	Aquatic eco-system management(WSW 154)	XXXXXXXX	10	9	3.91
37	Renewable energy conversion technologies - I(ENR 124)	XXXXXXXX	36	30	3.92
38	Research Methodology(MEU 176)	XXXXXXXX	14	13	3.92
39	Air quality management(NRE 134)	XXXXXXXX	43	42	3.95
40	City and Regional Planning and Management(MEU 152)	XXXXXXXXX	12	11	3.95
40	Corporate Accounting and Reporting(BSI 128)	XXXXXXXX	8	3	3.98
41	Sustainable business strategy(PPM 107)	XXXXXXXX	25	17	3.98
43	Management of development organizations(MPD 153)	XXXXXXXX	31	31	4.02
43	Spatial data modelling and GIS applications(NRG 174)	XXXXXXXX	13	13	4.02
44	Corporate finance(PPM 122)	XXXXXXXX	33	22	4.03
45		XXXXXXXX			
40	Climate change and law(MPL 134) Energy auditing, energy efficiency and energy	^^^^^	6	4	4.05
47	conservation(ENR 114)	xxxxxxxx	36	31	4.07
48	Legal aspect of business(PPM 158)	XXXXXXXX	24	17	4.07
			- ·	_,	,
50	Econometrics(MPE 172)	xxxxxxxx	36	30	4.09
----------	---	------------------------	----	----------	------
51	Environmental health and risk assessment(NRE 144)	XXXXXXXX	41	40	4.09
	Seminar/clinic on contemporary issues in infrastructure and				
52	environment - II(MPL 102)	XXXXXXXXX	8	5	4.09
53	Infrastructure project finance law(MPL 146)	XXXXXXXXX	5	4	4.1
54	Advanced geo-informatics for water resources(WSW 175)	XXXXXXXXX	10	7	4.11
55	Management information systems(BSI 171)	XXXXXXXXX	8	3	4.11
56	Water quality management (NRE 142)	XXXXXXXXX	43	42	4.12
57	Indian economics and development(MPE 141)	XXXXXXXXX	36	30	4.14
58	Integrated impact assessment(MPD 145)	XXXXXXXXX	24	24	4.14
59	Management information system(PPM 171)	XXXXXXXXX	24	17	4.14
60	Renewable energy conversion technologies - II(ENR 126)	XXXXXXXXX	36	30	4.14
61	Quantative methods in management - 2(PPM 174)	XXXXXXXXX	25	17	4.15
62	Water audit and demand management(WSW 124)	XXXXXXXXX	14	9	4.16
63	Game theory(MPE 147)	XXXXXXXX	37	30	4.2
64	Managerial economics - 2(PPM 142)	XXXXXXXXX	24	17	4.23
65	Renewable energy conversion technologies - I(ENR 124)	XXXXXXXX	36	30	4.23
66	Air pollution and climate change(NRC 134)	XXXXXXXXX	14	11	4.24
67	Environmental economics(MPP 147)	XXXXXXXXX	24	17	4.24
68	Renewable energy conversion technologies - I(ENR 124) Climate change: Vulnerability, Impacts Adaptation &	XXXXXXXX	36	30	4.24
69	Resilience(NRC 182)	xxxxxxxx	22	15	4.25
70	Development economics(MPD 147)	XXXXXXXX	25	24	4.26
71	Urban Infrastructure Law and Management(MPL 166)	XXXXXXXX	3	2	4.3
72	Group practicum 2(MPD 102)	XXXXXXXX	24	24	4.31
73	Hydrology(NRE 162)	XXXXXXXXX	24	18	4.31
/5	Innovation and change management for infrastructure		22	10	
74	projects(BSI 132)	xxxxxxx	8	3	4.31
	Strategic communication and stakeholder engagement(BSI				
75	103)	XXXXXXXX	8	3	4.31
	Energy auditing, energy efficiency and energy				
76	conservation(ENR 114)	XXXXXXXX	36	31	4.32
77	Immunochemistry(BBP 130)	XXXXXXXX	19	16	4.32
78	Water audit and demand management(WSW 124)	XXXXXXXX	14	11	4.35
79	Introduction to management techniques - I(ENR 185)	XXXXXXXX	35	29	4.36
80	Theory of environmental policy(MPE 144)	XXXXXXXX	36	30	4.36
81	Thermodynamics(ENR 131)	XXXXXXXX	36	31	4.37
0.2	Population and health: Techniques of analysis policy		24	22	4 20
82 83	perspectives (MPD 124)	XXXXXXXXX XXXXXXXXX	34	33 22	4.38
	Infrastructure policies reforms and law(PPM 151)		35		4.39
84	Law and policy for maps and remote sensing(NRG 160) Molecular cell biology - from genes to communities(BBP	XXXXXXXX	12	12	4.42
85	114)	xxxxxxxx	19	16	4.42
86	Indian agriculture in a global setting(MPE 128)	XXXXXXXXX	11	7	4.44
87	Plant biotechnology laboratory - Part 2(BBP 102)	XXXXXXXX	19	16	4.47
88	Plant biotechnology laboratory - Part 2(BBP 102)	XXXXXXXX	19	16	4.5
89	Molecular markers and breeding(BBP 150)	XXXXXXXXX	19	16	4.51
90	Statistics for the life sciences(BBP 112)	XXXXXXXXX	23	16	4.53
			25	±0	

92	Qualitative research methods in management(MPP 173)	XXXXXXXX	24	17	4.56
93	Irrigation water and drinage management(WSW 136)	XXXXXXXX	15	11	4.59
94	Infrastructure organization and HR(BSI 182)	XXXXXXXX	8	3	4.6
95	Plant biotechnology laboratory - Part 2(BBP 102)	XXXXXXXX	19	16	4.61
96	International environmental law(MPL 152)	XXXXXXXX	6	3	4.62
97	Real Estate Development(MEU 184)	XXXXXXXX	12	11	4.65
98	Logistics and supply chain management(BSI 138)	XXXXXXXX	8	3	4.67
99	Water quality modelling and application(WSW 176)	XXXXXXXX	9	6	4.7
	Integrated watershed and river basin management(WSW				
100	164)	XXXXXXXX	6	5	4.77
101	Water supply and sanitation(WSW 184)	XXXXXXXX	6	5	4.88
102	Biotechnology law(MPL 162)	XXXXXXXX	2	1	5
103	Ecological Economics(MPE 125)	XXXXXXXX	4	1	5
104	Environmental Aspects of Business Activities (MPL 156)	XXXXXXXX	5	3	4.58
105	Macroeconomic Environment (BSI 122)	XXXXXXXX	8	4	4.15
			0050		

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Final Feedback 81%

Annexure 3

	Maj	or Projects 2016	-17		
PROJECT_TITLE	SPONSOR	PI_NAME	PROJECT_ START	PROJECT_ END	AMOUNT (In RS.)
Local Coordinator for the UNU-IAS case study in Lucknow on "Low Carbon Urban Water Environment Project"	United Nations University	Mr Chander Kumar Singh	01-Sep-16	28-Feb-17	15,94,935
Structural studies on proteins involved in synthesis and processing of mycolic acids in Mycobacterium tuberculosis	Department of Biotechnology	Dr Chaithanya Madhurantakam	20-May-16	20-May-17	21,10,000
National Post-Doctoral Fellowship to Dr Anil Kumar Verma, under the mentorship of Dr. Ramakrishnan Sitaraman	Science and Engineering Research Board	Dr Ramakrishnan Sitaraman	09-Jun-16	08-Jun-18	19,20,000
Assessing land issues for utility scale renewable energy development	The Shakti Sustainable Energy Foundation	Mr Sapan Thapar	16-May-16	31-Mar-17	38,21,498
ITEC Training program "Integrated Approach Towards Sustainable Development" during 27th march to 14th April 2017.	Ministry of External Affairs	Dr Chubamenla Jamir	21-Sep-16	31-Mar-17	20,00,000
ITEC training programme on "Climate change and sustainability" October 3- 21, 2016	Ministry of External Affairs	Dr Kamna Sachdeva	09-Sep-16	31-Mar-17	20,00,000
Embedding SCP in to TERI University Post Graduate Programme	UNEP	Dr. Shaleen Singhal	01-May-16	30-Nov-16	1,25,86,361
Scaling SCP Learning and Outreach through Awareness-raising amoung Key SWITCH-	UNEP	Dr. Shaleen Singhal	01-Jul-16	31-Dec-16	96,54,101

Asia Target Audiences - SSFA II					
Landscape Approach for Land-Water-Community Security	Solidaridad Network Asia Limited	Ms Fawzia Tarannum	01-Feb-17	30-Sep-17	30,00,000
Consultancy by Dr Leena Srivastava to prepare two technical papers on linkages between Energy and SDGs for discussion during the "2018 High level Political Forum" in Bangkok during 28 - 30 June 2017.	United Nations Department of Economic and Social Affairs	Dr Leena Srivastava	17-Jun-17	15-Jul-17	10,16,000
Design, development and testing of a down draft gasifier system completed by hydrogen enrichment thru air steam gasification	Petroleum Conservation Research Association	Dr Priyanka Kaushal	19-Apr-17	20-Nov-19	21,78,000
Feasibility study for climate protection by financial instruments in India in collaboration with One Climate Club	One Climate Club	Mr Sapan Thapar	05-Jul-17	30-Nov-17	10,35,000
Review of the current Indian Energy Policy framework/structure and Policy proposal related to Transport Sector.	Toyota Kirloskar Motors Private Limited	Dr Atul Kumar	01-Jul-17	10-Mar-18	16,12,500
ITEC programme on 'Climate Change and sustainability'' during 25 September to 13 October 2017.	Ministry of External Affairs	Dr Kamna Sachdeva	28-Aug-17	30-Nov-17	20,00,000
Application of life cycle thinking approach for enhancing the fruits and vegetables supply chain: A pilot study from Nagaland, India	United Nations Environment Programme	Dr Chubamenla Jamir	03-Aug-17	30-Nov-18	10,79,500
Modelling for Enhancing Water Quality in Uttarakhand using Geospatial Technology"	Department of Science and Technology,Utta rakhand State Council for	Dr Vinay Shankar P Sinha	12-Jun-17	12-Jun-19	50,46,400

	Science and Technology				
Preparation of State specific action plan for Water Sector - Arunachal Pradesh	Water Resources Department, Arunachal Pradesh	Mr M V Shiju	06-Apr-17	05-Apr-18	30,00,000

	Minor	r Projects 201	6-17		
PROJECT_TITLE	SPONSOR	PI_NAME	PROJECT_ START	PROJECT_ END	AMOUNT (In RS.)
Delivery of short course on Gender, Equity and Water Management	WaterEd Australia Pty Ltd.	Ms Fawzia Tarannum	17-Sep-16	30-Nov-16	6,00,000
Training on biodiversity conservation and biodiversity act for 200 women residing around Valmiki Tiger Reserve Done, Bihar.	Wildlife Trust of India	Dr Sudipta Chatterjee	08-May-16	31-May-16	76,000
Training Programme on "Geospatial Technologies" under Natural Resources Data Manager System (NRDMS) programme of DST	Department of Science and Technology	Dr Vinay Shankar P Sinha	25-Jul-16	31-Dec-16	10,00,000
One Week In-Service Training programme for AIS officers on The Sustainable Development Goals: Mainstreaming into the National Developmental Framework (28th November-2nd December, 2016)	Department of Personnel & Training	Dr Chubamenla Jamir	23-Aug-16	31-Jan-17	5,62,500
International Conference on Urban Geoinformatics (ICUG)-2017 during	TERI University	Dr Nithiyanandam Yogeswaran	04-Oct-16	31-Mar-17	-
To develop advanced models for climate related studies	National Security Council Secretariat	Dr Nithiyanandam Yogeswaran	24-Oct-16	23-Oct-17	9,94,750
Certificate Course - Capacity Building Programme on "Electricity Law, Reforms and Practice" during 1 - 3 September 2016.	HSA Advocates	Dr M P Ram Mohan	25-May-16	30-Sep-16	60,000
Training programme on Applied Economic Tools	Science and Engineering	Dr Sukanya	14-Jul-16	30-Nov-16	

and Techniques for managing Environmental Resources scheduled to be conducted during 3 - 5 October 2016	Research Board,TERI University	Das			2,81,792
Skill Building Workshop in Law and Economic	TERI University	Dr M P Ram Mohan	08-Sep-16	31-Mar-17	-
Skill Building on the Art and Practice of Trial, Corporate and Environmental Litigation during 20-22 October 2016	TERI University	Mr M V Shiju	08-Sep-16	31-Dec-16	-
Investigating the Potential for Decentralized Institutions, Technologies and Governance to Meet the Wastewater Challenge.	Auburn University	Dr Sukanya Das	01-Oct-16	31-Oct-17	2,68,000
Training programme on "nuclear energy and law" during 6-11 March 2017.	Nuclear Law Association, India,TERI University	Dr M P Ram Mohan	27-Dec-16	31-May-17	1,50,000
SUN (School University Network)	TERI University	Mr Sandeep Arora	22-Mar-17	31-Mar-18	5,00,000
Training program on "Climate Impacts and Responses" to be held during 2 - 3 March, 2017 at TERI University.	Ministry of Earth Sciences, Govt. of India	Dr Anu Rani Sharma	02-Feb-17	30-Apr-17	1,10,000
Surrey-TERI University International Networking Workshop on	University of Surrey	Dr Suresh Jain	15-Mar-17	30-Apr-17	1,76,000
Short-term Training Programme on Data Science Applications for Sustainability during July 10-12, 2017.	Multi- Client,Science and Engineering Research Board	Dr Neeti	17-Mar-17	31-Aug-17	1,00,000
International Conference on Agribusiness in Emerging Economies during January 3 - 4, 2018	Multi-Client	Dr Sapna A Narula	14-Jun-17	31-Jan-18	1,00,000
Lipolytic Helicobacter pylori enzymes and their	Indian Council of	Dr Ramakrishnan	25-Sep-17	24-Sep-18	7,73,640

potential role(s) in pathogenesis	Medical Research	Sitaraman			
Nutritional and livelihood security of subsistence farmer in the hilly and mountain areas of the Hindu Kush Himalayan region.	International Centre for Integrated Mountain Development	Dr Chubamenla Jamir	29-Jun-17	30-Apr-18	6,35,000
Program Management and Curriculum Development for the Faculty of Royal University of Bhutan at TU, New Delhi during 8th to 11 May 2017.	Royal University of Bhutan	Dr Seema Sangita	03-May-17	30-Jun-17	5,30,200

PROJECT_TITLE	SPONSOR	PI_NAME	PROJECT _START	PROJECT _END	AMOUNT (In RS.)
Landscape Approach for Land-Water-Community Security	Solidaridad Network Asia Limited	Ms Fawzia Tarannum	01-Feb- 17	30-Sep- 17	30,00,000
SUN (School University Network)	TERI University	Mr Sandeep Arora	02-Feb- 17	31-Mar- 18	5,00,000
Training program on "Climate Impacts and Responses" to be held during 2 - 3 March, 2017 at TERI University.	Ministry of Earth Sciences, Govt. of India	Dr Anu Rani Sharma	15-Mar- 17	30-Apr- 17	1,10,000
Surrey-TERI University International Networking Workshop on	University of Surrey	Dr Suresh Jain	17-Mar- 17	30-Apr- 17	1,76,000
Short-term Training Programme on Data Science Applications for Sustainability during July 10-12, 2017.	Multi-Client,Science and Engineering Research Board	Dr Neeti	22-Mar- 17	31-Aug- 17	1,00,000
Consultancy by Dr Leena Srivastava to prepare two technical papers on linkages between Energy and SDGs for discussion during the "2018 High level Political Forum" in Bangkok during 28 - 30 June 2017.	United Nations Department of Economic and Social Affairs	Dr Leena Srivastava	06-Apr- 17	15-Jul- 17	10,16,000
International Conference on Agribusiness in Emerging Economies during January 3 - 4, 2018	Multi-Client	Dr Sapna A Narula	19-Apr- 17	31-Jan- 18	1,00,000
Lipolytic Helicobacter pylori enzymes and their potential role(s) in pathogenesis	Indian Council of Medical Research	Dr Ramakrishnan Sitaraman	03-May- 17	24-Sep- 18	7,73,640
Design, development and testing of a down draft gasifier system completed by hydrogen enrichment thru air steam gasification	Petroleum Conservation Research Association	Dr Priyanka Kaushal	12-Jun- 17	20-Nov- 19	21,78,000
Feasibility study for climate protection by financial instruments in	One Climate Club	Mr Sapan Thapar	14-Jun- 17	30-Nov- 17	10,35,000

India in collaboration with One Climate Club					
Nutritional and livelihood security of subsistence farmer in the hilly and mountain areas of the Hindu Kush Himalayan region.	International Centre for Integrated Mountain Development	Dr Chubamenla Jamir	17-Jun- 17	30-Apr- 18	6,35,000
Review of the current Indian Energy Policy framework/structure and Policy proposal related to Transport Sector.	Toyota Kirloskar Motors Private Limited	Dr Atul Kumar	29-Jun- 17	10-Mar- 18	16,12,500
ITEC programme on 'Climate Change and sustainability" during 25 September to 13 October 2017.	Ministry of External Affairs	Dr Kamna Sachdeva	01-Jul- 17	30-Nov- 17	20,00,000
Application of life cycle thinking approach for enhancing the fruits and vegetables supply chain: A pilot study from Nagaland, India	United Nations Environment Programme	Dr Chubamenla Jamir	05-Jul- 17	30-Nov- 18	10,79,500
Modelling for Enhancing Water Quality in Uttarakhand using Geospatial Technology"	Department of Science and Technology,Uttarakhand State Council for Science and Technology	Dr Vinay Shankar P Sinha	03-Aug- 17	12-Jun- 19	50,46,400
Preparation of State specific action plan for Water Sector - Arunachal Pradesh	Water Resources Department, Arunachal Pradesh	Mr M V Shiju	28-Aug- 17	05-Apr- 18	30,00,000
Program Management and Curriculum Development for the Faculty of Royal University of Bhutan at TU, New Delhi during 8th to 11 May 2017.	Royal University of Bhutan	Dr Seema Sangita	25-Sep- 17	30-Jun- 17	5,30,200

<u>Events</u>

7 July 2016	Management Development Programme on Reporting Sust	TERI Retreat
5 August 2016	Workshop on Practice of Nuclear Liability, Compens	Gujarat National Law University, Gandhinagar, Gujarat.
8 August 2016	Management Development Programme on Alternate Ener	TERI University
15 August 2016	Independence Day Celebrations	TERI University
17 August 2016	Summer School: Changing Sanitation and Hygiene Beh	Hotel The Stadel, Kolkata
17 August 2016	Institutional seminar "Urban Deprivation and its C	TERI University, Conference Room
23 August 2016	SCP Course Launch, first time in a developing coun	TERI University
23 August 2016	Mini-BLISS Schools Inauguration	TERI University
24 August 2016	Institutional seminar "Beyond the Resource Curse:	L001, TERI University
29 August 2016	Securing energy for Sustainable Global Development	TERI University
1 September 2016	Capacity Building Programme on "Electricity Law, R	TERI University
7 September 2016	Institutional seminar "Land Seminar"	TERI University
7 September 2016	Economics Seminar Series - The Application of Labo	TERI University
7 September 2016	Chancellor's visit to TERI University	TERI University
9 September 2016	University lecture series talk on "INEQUALITY AND	TERI University
14 September	Economics Seminar Series-Seminar 3 "GST Reforms:	TERI University

2016	<u>K</u>	
26 September 2016	Philosophy of Biology and Ethics in Biology Resear	TERI University
28 September 2016	Economics Seminar Series-Seminar 4 "Agriculture an	Conference Hall TERI University
3 October 2016	Short-term Training Programme on "Applied Economic	TERI University
3 October 2016	Indo-German Dialogue on Sustainable Water <u>Resource</u>	TERI University
6 October 2016	Young Researchers South Asian Symposium on SDGs 20	TERI University
19 October 2016	Economics Seminar Series 5 "Health Care Financing	TERI University
20 October 2016	3 day Litigation Clinic for law students and young	TERI University
26 October 2016	University lecture series "WOMEN IN HIGHER EDUCATI	TERI University
26 October 2016	TERI University Signs the HUC Charter	TERI University
4 November 2016	Ninth Convocation Ceremony	TERI University
9 November 2016	Economics Seminar Series-Lecture 6 - India's New C	TERI University
10 November 2016	TERI University Book Fair 2016	TERI University
11 November 2016	REtopia "Democratizing Renewable Energy"	TERI University
1 December 2016	21 Day Training Programme on Geospatial Technologi	TERI University
13 December 2016	Webinar "The Return of the Native: An ethnographic	TERI University
18 January 2017	Economics Seminar Series: Seminar 1 "An Egalitaria	TERI University
25 January 2017	Remodelling Global Cooperation to Address Global C	TERI University

1 February 2017	Economics Seminar Series: Seminar 2 "The impact of	TERI University
15 February 2017	Economics Seminar Series: Seminar 3 "Women Status	TERI University
22 February 2017	International Conference on Urban Geoinformatics	TERI University
2 March 2017	TERI University-MoES capacity Building program "Cl	TERI University
6 March 2017	Certificate course on "Nuclear Energy and Law"	TERI University
6 March 2017	Roundtable on Enhancing Policy Impact of Social Sc	TERI University
10 March 2017	Surrey-TERI University Joint International Worksho	TERI University
22 March 2017	Economics Seminar Series-Seminar 4 "The Corporate	L-103, TERI University
28 March 2017	<u>SWASH -2017</u>	TERI University
11 April 2017	Implementing SDGs in India: Challenges and Way For	TERI University
12 April 2017	Economics Seminar Series: Seminar 5 "Policy Challe	L-103, TERI University
21 April 2017	PRAVAAH 2017 "Sustainable Innovation and Entrepren	TERI University
21 June 2017	WASH Curriculum Development Workshop on 21-23 Jun	TERI University
21 June 2017	USAID funded Third WASH Summer School on Effective	TERI University

ANNLXURE 1.1

Sanjay Rastogi & Associates

Chartered Accountants

Independent Auditor's Report

We have examined the balance sheet of **TERI University** as at 31.03.2017 and the Income & Expenditure account for the year ended on that date which is in agreement with the books of account maintained by the said Trust or Institution. We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of the audit. In our opinion, proper books of account have been kept by the head office and the branches of the above named trust or institution visited by us so far as appears from our examination of the books, and proper Returns adequate for the purposes of audit have been received from branches not visited by us, subject to the comments given below:

In our opinion and to the best of our information, and according to information given to us, the said accounts give a true and fair view-

(i) In the case of the balance sheet, of the state of affairs of the above named trust as at 31st March 2017 and,

(ii) In the case of the income & expenditure account, deficit of its accounting year ending on that date

Place: New Delhi *Date: 25/08/2017*



For Sanjay Rastogi &Associates Chartered Accountants (FRN : 014056N)

bli 1

-CA Sanjay Rastogi Proprietor (Membership No. 075033)

C-53.SFS, Gaurav Apis., Saket, New Dethi 119 817. Telephones: 2690 1922. 2632 8089 Fax: 2683 0727, E-mail: sra@mailcom www.sracu.co.in

	UNIVERSITY lew Delhi t for the year er	ided on March 31, 20	017
		(Amount	
	Schedule	As on 31.3.2017	As on 31.3.2016
Income			
Academic Receipts	4 (a)	92,421,972	81,078,473
Interest Receipts	4 (b)	17,248,215	17,476,048
Others Receipts	4 (c)	44,959,302	40,038,140
Receipts from Completed Research Projects		46,577,668	57,147,953
Total income		201,207,157	195,740,614
Expenditure			
Salary	5	116,264,712	82,001,873
Academic Course Expenses	6	20,976,710	17,801,028
Office Contigencies & Miscellaneous	7	. 57,351,107	69,660,106
Expenditure of Completed Research Projects		19,473,777	17,573,755
Depreciation		3,416,989	1,964,326
Fotal Expediture		217,483,295	189,001,088
Excess of Receipts over Expenditure (Surplus)		- 16,276,138	6,739,526
Balance available for Appropriation		- 16,276,138	6,739,526
ess : Transferred in to Reserve & Surplus Account		- 16,276,138	6,739,526
Surplus/Deficit brought forward		70,986,375	64,246.849
Surplus/ Deficit Carried over to Income & Expenditure		54,710,237	70,986,375
ignificant Accounting Policies and Notes to the Accounts	8		
chedule 1 to 8 form an integral part of the Accounts			
his is the balance sheet referred to in our report of even date		Ť.	
or Sanjay Rastogi & Associates	Ň	1	$\Omega \sim 1$
hartered Accountants	NIV	(./	// ()
RN: 014056N)	$\left(\int \int \int dx $	V	$P \mid P \mid$
A Sanjay Rastogi	of mall	Aler in	leene Thu
A Sanjay Rastogi	Dhanraj Singh	Dr. Rajiv Seth	Dr. Leena Srivastava
reprietor tembership No. 075033)	Finance Office		/ice Chancellor
ace : New Delhi			
ate : 25 of 2017			1

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Particulars	ulars	Rate	W.D.V.	V. Additions	ions		Balance	Depreciation	WDV
		%	As on	less than	more than	Discarded	as on	for the	As on
			01.04.2016	180 days	180 days		31.03.17	year	31.03.17
Computer		60	704,609	1,759,725	1,775,421		4,239,755	2,015,936	2,223,820
Computer (project)		60	68,295		38,773	,	107,068	64,241	42,827
Office Equipment		15	6,064,541	445,107	978,373		7,488,021	1,089,820	6,398,201
Office Equipment (Project)		15	1,747,223	T	15,750		1,762,973	264,446	1,498,527
Scientific Equipment		15	457,481				457,481	68,622	388,859
Scientific Equipment (project)	ect)	15	5,337,630	4,060,083	2,360,517	•	11,758,230	1,459,228	10,299,002
Furniture		10	2,156,549	243,960	147,577		2,548,086	242,611	2,305,475
Furfriture (Project)		9	34,726		2	•	34,726	3,473	31,253
Land - Delhi Campus			43,634,798				43,634,798		43,634,798
Capital Work in Progress - Mysore Campus	- Mysore Campus		33,921	18,184		52,105			,
Capital Work in Progress - Guwhati Campus	Guwhati Campus				10,707		10,707		10,707
Capital Work in Progress - Hyderabad Campus	Hyderabad Campus			1,177,582	20,482,078		21,659,660	•	21,659,660
Total			60,239,773	7,704,641	25,809,196	52,105	93.701.505	5.208.376	88.493.129

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stogl		BUAC
10	Taluas * Cuar	/

Particulars	Rate	te W.D.V. Additions	Additions	tions	sources)	Balanco		Contraction of the
	%	As on	less than	more than	Discarded	as on	for the	As on
		01.04.2016	180 days	180 days		31.03.17	year	31.03.17
Computer	60	704,609	1,759,725	1,775,421		4,239,755	2,015,936	2,223,819
Office Equipment	15	6,064,542	445,107	978,373		7,488,022	1,089,820	6,398,202
Scientific Equipment	15	457,481				457,481	68,622	388,859
Furniture	10	2,156,549	243,960	147,577		2,548,086	242,611	2,305,475
Land - Delhi Campus		43,634,798				43,634,798		43,634,798
Capital Work in Progress - Mysore Campus		33,921	18,184	•	52,105			
Capital Work in Progress - Guwhati Campus			•	10,707		10,707		10,707
Capital Work in Progress - Hyderabad Campus			1,177,582	20,482,078		21,659,660		21,659,660
Otal		53,051,900	3,644,558	23,394,156	52,105	80,038,509	3,416,989	76,621,520
		Schedule 1 - FI	Schedule 1 - Fixed Assets (Funded from Profects)	nded from Proje	ects)	Tall and the second	and the second second	
Particulars	Rate %	W.D.V. As on 01.04.2016	Additions less than mo 180 days 18	ions more than 180 days	Discarded	Balance as on 31.03.17	Depreciation for the vear	W.D.V. As on 31.03.17
Computer (project)	60	68,295	•	38,773		107,068	64,241	42,827
Office Equipment (Project)	15	1,726,788		15,750		1,742,538	261,381	1,481,157
Scientific Equipment (project)	15	5,358,066	4,060,083	2,360,517		11,778,666	1,462,294	10,316,372
Furniture (Project)	10	34,726				34,726	3,473	31,253
Total		7 107 075	000 000 1	0141000				

TERI UNIVERSITY	As on 31.3.2017	As on 31.3.2016
Schedule 2: Current Asset	5	
Loan & Advances	5,672,145	8,683,827
Interest Accrued and due but not received	4,193,487	389,759
Project Work in Progress	81,501,567	61,485,369
Prepaid Expenses	2,221,534	380,386
Imprest Accounts	2,181,102	1,272,185
TERI - Students Fellowship	9,954,619	9,954,619
Amount Recoverable from Student - Course Fee	6,847,415	11,774,465
Amount Recoverable for Completed Projects	11,861,454	879,443
Amount Recoverable from Training, Seminar, Workshop and		
Sponsorship Activities	5,980,335	-
Amount Recoverable from Open Society Foundation	2,434,874	-
Amount Recoverable from Mr. T.D. Gupta	-	2,100
Amount Recoverable from Students against reimbursement	10,770	-
Amount Recoverable from Mrs. Ria Sinha	-	20,000
Security Deposit with Landlords	611,200	475,200
TDS Recoverable	9,314,291	5,188,941
Water & Electricity Charges Receivable		2,968,000
Cash & Bank Balance		
State Bank of Hyderabad		
SB A/c no. 52142908571	2,135,818	3,610,293
State Bank of Hyderabad		
SB A/c no. 52142908560	15,382	439,961
HDFC Bank A/c - 02731110000021	431,919	4,014,792
HDFC Bank FCRA A/c - 00031170000088	596,593	850,908
ICICI Bank - 000701263993	146,634	720,885
Canara Bank - 3159101000096	227,012	107,621
Canara Bank - 3159101001448	6,702	12,956
Cash in Hand	300,201	995,730
Total	146,645,054	114,227,440



TERI UNIVERSITY	As on 31.3.2017	As on 31.3.2016
Schedule 3: Current Liabilities		
Sundry Creditors	12,966,646	13,776,36
Loan against FDR - Short Term Amount Payable to Students/OSF Students	36,000,000 703,641	16,21
Amount Payable to Statients/OSP Statients	703,041	26,00
Project Contribution Received in Advance	122,117,177	99,923,46
Amount Payable to State Bank of India & HDFC Bank Limited - Credit		
Card	279,595	120,14
Security Deposit Received from Suppliers	15,000	115,00
Audit Fees Payable	71,500	71,50
Interest Payable on Loan against FDR Group Insurance Claim Payable	1,796,456 38,927	
Stale & Cancelled Cheques - (Dr / Cr)	(118,343)	4,92
Unutilised Contingent Grants - CSIR	84,844	79,17
Unutilised Contigent Grant - DBT	205,588	206,35
Unutilised Contigent Grant - UGC	97,914	97,91
Unutilised Contigent Grant - DST	68,450	48,45
Grant Recoverable from DST (Inspire) for Students	59,800 -	151,84
Grant received from UGC for Students	15,000	16,00
Grant received from DST for Students	-	130,00
Grant received for Manish Manjunath Fellowship	7,400	10,00
Misc. Fellowship Received	529,900	4 070 17
Amount transferred from Previous Employer for Retirement Benefits Outstanding Expenses	1,273,429	1,273,42
Provision - Faculty/Student Development Programme	471,049	1,884,18
Student Activities Fund	400,000	550,00
Salary Payable	70,570	56,89
Advance Money Received for Field Work - Dr. Sapna Narula	254,200	
Received from University of Guelph for PhD Student	237,281	237,28
Duties & Taxes Payable	1,685,330	1,210,34
Security Deposit Refundable - International Tractor Limited	25,307,250	-
Security Deposits Refundable	6,096,803	5,473,80
Security Deposit from Employee - House Lease	234,000	161,00
Security Deposit Hostel Students	375,000	290,00
Course Fee Received in Advance Course - MA (PPSD) Travelling Expenses Payable	149,672	385,00 3,280,00
		0,200,00
Total	213,706,371	129,291,59
Schedule 4: Income Receipts		
A. Academic Receipts		
Course fees	89,532,946	79,168,45
ale of Application Form	2,889,026	1,910,02
The contract of the second	92,421,972	81,078,47
. Interest Receipts	10 000 010	10
nterest Received on Deposits	15,930,840	13,581,51
terest Received on Reserve Bank of India Bond		2,380,00
iterest Received on Tax Deducted at Sources	528,115	75,48
iterest on Home Loan/Vehicle Loan/Education Loan	110,159	454,42
terest on Saving Bank	679,101	874,46
	17,248,215	17,476,04
. Other Receipts	- A. CARCINE COMPANY	and the second
ponosorship	15,020,000	280,500
dmission Cancellation Fees	239,380	541,24
ent Received from Rental Premises	16,871,500	
nount Written back	2,078,314	530,860
iscellaneous income	1,439,110	1,483,227
	5,426,993	5.138.07
	12,067	30,320 31,922,162
eceipts from Hostel Fees ecoveries against Notice Pay & Leave Encashment (303) 3 4 (3)	3 665 018	- · · · · · · · · · · · · · · · · · · ·
ecoveries against Notice Pay & Leave Encashment 33(33) 3 4 s ecelpts from Training, Seminar & Workshop	3,665,018	111.760
ecoveries against Notice Pay & Leave Encashment	3,665,018 206,420 44,959,302	40,038,140

TERI UNIVERSITY	Аз ол 31.3.2017	As on 31.3.2016
Schedule 5: Salary Components	and the set of the generation	
Pay & Allowances	100,637,395	70,089,30
Performance Linked Allowance	3,199,233	2,132,947
Employer's Provident Fund Contribution	8,266,152	5,996,44
Telephone Reimbursement	48,634	28,000
Medical Reimbursements	868,813	561,446
Gratuity Expenses	410,639	1,449,743
Leave Encashment	291,075	495,915
Leave Travel Allowance	2,542,771	1,248,080
Total	116,264,712	82,001,873
Schedule 6: Academic Course Exper	868	Contraction and the
Advertisement	1,028,846	1,087,142
Bank Charges	3,093	5,005
Books & Periodicals - (Library)	843,714	582,085
Computer Software Maintenance Charges	76,470	96,536
Laboratory, Chemical, Glassware & Consumable Expenses	127,409	118,360
Conveyance & Hiring Expenses	672,283	615,194
Membership Fee, Subscription and Registration Charges - Academic	607,956	602,288
Meeting & Refreshment Expenses		89,773
Fellowship, Honorarium, Stipend & Internship and Award Expenses	1,679,026	1,369,070
Students Field Expenses	5,079,557	4,103,405
Misc. Expenses	1,709	1,274
Postage Expenses	442	3,236
Printing & Stationery	301,728	371,873
Professional Time Other Consultants	10,377,048	8,151,407
Repair & Maintenance Expenses	44,000	32,452
Neeting , Seminar & Workshop	64,440	351,812
ravelling Expenses	68,989	220,116
Total	20,976,710	17,801,028



TERI UNIVERSITY	As on 31.3.2017	As on 31.3,2016
	United in the second se	011012010
Schedule 7: Office Contingencies and I	Viscollaneous	
Schedule 7. Once Ophangencies and r	Macenaneoua	
Annual Maintenance Contract	2,634,663	2,877,31
Alumni Meeting Expenses	7,011	39,65
Audit Fees	71,500	71,50
Annual Sports Day Expenses	21,289	23,72
Bank, Interest & Finance Charges	1,984,115	596,84
Building Maintenance Charges for Rented Premises	10,759,680	-
Celebration & Festival Exepnses	127,839	118,47
Computer Software and Repairs & Maintenance	747,733	1,016,11
Conveyance Expenses	156,012	63,66
Convocation Expenses	1,430,674	1,030,02
Entertainment, Meeting and Hostel Operating Expenses	2,272,819	2,959,19
Training, Seminar & Workshop Expenses	2,661,727	28,945,91
Electrcial & Hardware Items	599,650	383,76
Guest House Operating Exp.	181,728	178,33
Hiring charge - Vehicle	1,030,621	1,126,32
Fellowship and Honorarium - Others	91,177	56,57
Internal Grant Committee - Grant for Faculty	500,000	-
Internal Grant Committee - Grant for Students	200,000	-
nsurance Premium	256,149	138.31
Email/Internet/LAN Network Expenses	1,015,621	1,166,94
Postage Expenses	103,331	72,49
Printing & Stationery	1,488,562	1,023,60
Misc. Expenses	170,794	278,90
Provident Fund - Administration charges	510,991	397.07
Provident Fund - EDLI Charges	42,750	35,62
Provident Fund - Inspection Charge	2.412	2,40
lousekeeping Charges, Office Maintenance Charges & Other	2,412	2,40
Professional Charges	11,249,494	9,227,42
Repair & Office Maintenance - Building	1,264,357	1,001,59
Aembership Fee, Subscription and Registration Charges	255,687	534,48
Repair & Maintenance - Furniture	614,766	675.34
Repair & Maintenance Office Equipment	818,564	607,45
Repair & Maintenance Vehicle	202,927	199,84
ecurity Service Charges	2,986,794	3,005,30
ervice Tax Paid	2,531,480	2,463,030
ransit Residence	521.688	702,75
elephone Expenses	376,673	496.37
ravelling Expenses	799,093	178,58
raveiling Expenses ice Chancellor - Car Running Expenses	233,612	85,79
mount Written Off	the second state and the second state was and the state of the second state of the sec	05,79
	273,695	7,879,315
Vater/Electrcitiy/Diesel A/c Total	6,153,429	69.660.106
IOTAI	57,351,107	09,000,10



SCHEDULE 8 : SIGNIFICANT ACCOUNTING POLICIES AND NOTES TO THE ACCOUNTS

Significant Accounting Policies:

Accounting Convention:

The accounts have been prepared on accrual basis.

Revenue recognition

- a) Course Fee & Hostel Fee are recognized as income on accrual basis.
- b) Sponsorship fees is recognized as income on accrual basis.
- c) Contribution & Expenditure related to Research Activities, Training Programme, Seminar & Workshop are recognized as income / expenditure in Income and Expenditure Account at the time of completion of the activities.
- d) Income from investment is recognized on accrual basis.

Fixed Assets:

Fixed assets are stated at cost of acquisition / construction less accumulated depreciation.

The cost of acquisition is inclusive of borrowing cost, freight, taxes and other incidental expenses incurred up to the date of installation and commissioning of the assets.

No write-off is made in respect of leasehold land.

Depreciation

Depreciation of fixed assets has been provided on the written down value method at the following rates :

Office and Scientific Equipment, Electric installations, Air – Conditioning plants, Generators 15% Furniture & Fixtures 10% Car 15% Computers 60%

Investment

Long term investment is stated at cost. Current investment is stated at cost or net realizable value whichever is lower.

NOTES TO THE ACCOUNTS

The Trust is registered under section 12A (a) of the Income Tax Act 1961 and therefore, eligible for benefit of section 11 of the Income Tax Act. The donations made to the trust are exempt under section 80(G)(5)(V) of the Income Tax Act 1961.

Previous year figures have been regroups - rearranged wherever considered necessary.

Signature to Schedule 1 to 8 of the Balance Sheet.

Dhanra Singh

Finance Officer

Dr. Rajiv Seth Pro-Vice Chancellor

Ve.

Dr. Leena Srivastava Vice Chancellor

As per Reports of even date attached:

For Sanjay Rastogi & Associates Chartered Accountants FRN : 014056N



Proprietor Membership NO. 075033

Place : New Delhi Date : 25.08.2017

Environment Audit Report II

2016-2017 May 6, 2016 TERI University

This report is the outcome of the investigations done by committee members during 2015-2016.

There has been a remarkable improvement in the hygienic conditions of the University and students and faculty members recognize the prompt action and proactive approach of the General Administration of the university on this matter. Action has been taken on most of the recommendations given in first report of the environment audit which was submitted in November 16, 2015.

Following aspects were investigated by the committee

- Drinking water quality
- Sewage treatment and water recycling
- Solid waste management
- Hostel
- Kitchen
- Laboratory
- Other health and hygiene related matters

1. Drinking water quality

The General Administration of the university has been successful in doing away the use of plastic bottles in the University. Drinking water quality is being monitored every month in the environmental laboratory of the University as well as by the maintenance staff. The water quality parameters are displayed and this practice is appreciated even by visitors of the university. Currently, there are no issues related to drinking water quality in the university. As it is being monitored regularly, therefore, any issue that may arise in future will be addressed immediately.

2. Sewage treatment and water recycling

The working of sewage treatment plant (STP) was first investigated by Prof Kansal in the month of August 2015. He suggested a protocol for operation of the STP. As the STP is based on biological treatment process, use of chemicals in the STP was stopped, except for the use of sodium hypochlorite solution in the final treated water tank.

Some of the uncomfortable observations w.r.t. STP is as follows:

1. The sewage treatment plant receives very less quantity of wastewater in comparison to the quantity of water used in the university. We were informed that only hostel block is connected to STP whereas, <u>wastewater generated from cafeteria kitchen</u>, admin and <u>academic block is directly disposed into sewers</u>. However, indications are that <u>even</u>

<u>hostel block is not fully connected to the STP</u> or there may be some arrangement of bypassing hostel sewage directly into sewers.

- 2. The above postulate is further strengthened if one observes the characteristics of water quality at the inlet of STP (Table 1). The values are found to be consistent during monitoring done in the month of September, December, and April. The values at the inlet (raw sewage) indicates:
 - (a) BOD (organic pollution) is nearly half in comparison to sewage characteristics, indicating that it is diluted.
 - (b) High value of phosphorus (almost 5 folds higher than sewage) indicates that the wastewater is mainly of detergent/ soap origin.
 - (c) Very low value of suspended solids concentration further indicates that the flushing water is not entering into sewage treatment plant.

S.No	Water quality parameter	Inlet	Outlet
1	pH	8.4	8.2
2	BOD (mg/l)	125	90
3	COD (mg/l)	190	90
4	Nitrogen (mg/l)	15	7
5	Phosphorus (mg/l)	45	30
6	Total suspended solids (mg/l)	50	15

 Table 1: Water quality in sewage treatment plant

Based on 2 (a), (b) and (c) above, it is suspected that only the washing (laundry/bathing) water from the hostel area is reaching the STP and the rest is by-passed into sewers.

- 3. It is further observed that the maintenance staff of the university is not comfortable in handling the STP and often neglects it. For instance, instead of dosing <u>sodium</u> <u>hypochlorite (disinfectant)</u> in the treated water tank, they were found occasionally dosing <u>sodium hydroxide</u>.
- 4. Sludge has never developed in the STP, which indicates there is effectively no treatment of wastewater.
- 5. The outlet wastewater quality is suitable for its application in garden and horticulture purpose (i.e. meets land disposal standards).
- 6. It is believed that if entire quantity of wastewater generated in the university is treated, it can meet a substantial amount of water required for green belt, developed by the university and hence will significantly reduce the purchase of tanker water.

Recommendations:

1. It is recommended that the entre drainage system of the University be checked thoroughly from the building drawings and also through physical verification of wastewater flows.

2. At least, dishwashing wastewater from kitchen should essentially be connected to STP.

Case 1: If there are no by-pass systems in the University

This is a happy situation, and the inlet tank of STP needs small modification and the treated water can be used for horticulture. Rest of the STP can be dismantled and the space can be used for other purposes.

Case 2: If by-pass points are found and decision is made to divert entire wastewater to STP

Under this situation the wastewater will be characterized again and suggestions for operation of STP will be made. It is likely that the use of treated sewage will substantially reduce the cost of tanker water purchase.

3. Solid Waste Management

Currently, adequate number of bins is provided throughout the campus and the university looks clean. Further, efforts have been made by General Administration to send the paper waste to IHC and from there waste is sent to recycling units. However, there is an ample scope for improvement in existing solid waste management practices. Some of the observations in this regard are as follows:

- 1. Waste collection:
- (a) <u>Promoting habit of waste segregation</u>: The existing bin systems do not allow for waste segregation, hence a substantial amount of waste gets soiled and become unsuitable for recycling. Though, it is recognized that University generates very less amount of waste, but there are few places where bulk of waste is generated and waste segregation will be of much help.
- (b) <u>Faulty selection of bins</u>: The existing bins that has a swinging lid is not suitable for disposal of wet waste (garbage), it often gets soiled. People tend to throw the garbage over the lid (with the assumption that it will slide into the bin). This creates unhygienic condition (see figure 1).
- (c) Staff engaged in waste collection is not using hand gloves and apron.
- (d) At some locations there is a need for placement of bins, whereas, at some other locations the size of bin is not adequate in comparison to the waste generation (Figure 2).





Figure 1.Existing bins for garbage

Figure 2. Overflowing bin

2. Waste disposal:

About 150 kg of solid waste is generated in the university (Table 2), of which about 90% is organic compostable waste, nearly 3 kg paper waste, 5 kg mixed garbage (bulk of which is in form of thermocol plates/plastic spoons/paper cups) and 0.5 kg infectious sanitary waste (from washrooms, more from women). Small quantity of waste is generated from laboratories.

Results shows that only about 2% of the waste (paper waste) is being recycled, whereas as potential exists to compost and use 90% of the organic waste which is about 125 kg/d.

Entire university waste is currently stored in a large bin (see figure 3) from where the waste is disposed into the community bin. This mixed garbage includes sanitary waste, which is infectious in nature and should not have been mixed with other waste.

Table 2 Waste generation pattern in the university (data through direct observations and discussions with the staff).

Location	Current collection practice	Daily waste generation rate	% organic matter
Administrative block	Once daily in morning, not on Sundays and holidays	1-2 kg	20-30%
Academic block	Once daily in morning, not on Sundays and holidays	1-2 kg	5-10%

Hostel	Once daily in morning	8-10 kg	10-15%
GF Canteen	Twice- thrice daily in morning and evening (afternoon if needed)	100-150 kg	80-90%
FF Cafeteria	Once daily in morning normally	8-10 kg	40-50%
Washrooms	Once daily in morning, not on Sundays and holidays	3-4 kg	Nil
Labs	Once daily in Morning	1 kg per lab	Nil
Amphitheatre, activity room, library, PhD room, Cafeteria building 3 rd floor, and elsewhere	, ,	3-4 kg	10-15%



Figure 3. Waste storage in the university.

Recommendations

- 1. Waste collection, promoting waste segregation, bin designs, capacity and location are given in Annexure 1.
- 2. Location of the bin near Amphitheater is currently hidden and can be located in the prominent visible place.
- 3. Staff involved should be issued hand gloves and apron.

- 4. Waste collected from washrooms includes sanitary napkins which is an infectious waste. This category of waste should be disposed along with the biotechnology laboratory waste.
- 5. Use of disposable thermocol plates/cups/paper plates should be discouraged to the extent possible especially when a student is purchasing food for consumption within the canteen area.
- 6. A vermi-composting plant to be set-up for the organic garbage.
 - (a) Sufficient space is identified and is available near the exiting STP.
 - (b) Approximate cost of the plant will be about INR 10000.

It is expected that with the execution of above recommendations:

- (a) University will be able to recycle 95% of its waste.
- (b) Compost thus produced will serve the requirements for horticulture and Green belt.

4. Hostel

With reference to the issues raised in the previous report of the hygiene committee, some positive change has been noted:

- The problem of rodents in the hostel rooms has been effectively tackled through pest control.
- Dampness and foul smell: the extent and severity of dampness has come down since it takes some time for drying up completely.
- Foul odour from air vents in bathrooms and corridor on first floor has reduced.
- The housekeeping staff has been provided with a separate room for keeping their belongings and changing into work clothes.

Current issues:

- The medical room in the hostel needs proper ventilation. The only source of fresh air is small slatted shafts, which is not only inadequate but also allow mosquitoes and hot air to come in during summers. Fan provided for air circulation is not adequate to keep room cool.
- Mosquitoes throughout the campus, especially in night.

Recommendations:

- 1. Another round of maintenance check related to plumbing may be taken up for arresting/ assessing dampness. Cleaning of air ducts needs to be taken up for reducing dust and dirt accumulation and thereby, also keeping foul smell at bay.
- 2. Air condition or adequate ventilation and temperature control be ensured in the medical room.
- 3. Area wide anti-mosquito gaseous spray especially during the months of February, March, and August to October.

5. Kitchen

Some of the issues raised in the previous hygiene committee report that have been addressed, though partly, are:

- Utensil washing area has been moved some distance away and opposite to the cooking area.
- Kitchen staff occasionally use apron. However, cleanliness of aprons is still an issue.
- Utensils used for cutting, and cooking is relatively cleaner in comparison to last inspection.
- The deep freezer has been partitioned to separate vegetarian items from non-vegetarian.

Current Issues:

- 1. In general, students are not satisfied with the quality of food served in breakfast and dinner. Though this aspect is out of the purview of the Hygiene committee, however, students want the committee to flag the issue related to the quality of rice (often not fully cooked) and chapatti (suspected to be occasionally mixed with refined wheat flour). The food is sometimes is too spicy and at other times too bland. Prominent complaint of the student is that the same caterer when cooks for university function, the food tastes far better.
- 2. The kitchen staff is still not completely habituated to wearing caps and aprons. Primary reason is high temperature and not adequate ventilation.
- 3. OTG/Grill and trolley over which cooking stove have been placed are heavily greased.
- 4. The fridge is found to be dirty and with spilled food items / curries etc.
- 5. Cloth dusters used for wiping the cooking slabs / counters and during cooking are dirty and inadequate.
- 6. The floor do not have proper gradient, as a result of which water takes longer time to drain. Further, in the absence of adequate space for keeping large utensils after washing, the same are placed on the floor adjoining the washing area.
- 7. Not enough storage space for utensils etc prompted caterer to store items at STP (see picture below).



8. No firefighting system is available in the kitchen.

Recommendations:

- 1. Repeated training and sensitization to kitchen hygiene is recommended for all the kitchen staff.
- 2. Regular (weekly) cleaning of kitchen equipment, refrigerators and grocery storage section is required. The idea of "one-time weekly mess off" can be mulled over so that staff gets time to do mass cleaning once a week.
- 3. Cloth dusters for cleaning cooking slabs / counters should be washed and dried properly before they are used again on the cooking counters. Similarly, cloth dusters used for cooking and wiping plates after washing also need to be cleaned every day. There should be an adequate stock of cloth dusters. <u>Perhaps University Administration should issue cloth duster every week and charge the cost from the caterer.</u>
- 4. The kitchen needs to be expanded from its current size since all the operations from storing of dry ration, cooked items, vegetables etc. to actual cooking and serving, to washing of utensils is being done from one area. This is not only unhygienic but even impedes efficiency of workers.

Main issue

- 1. It needs to be checked if the <u>canteen requires a license to operate</u>. See "Food Safety and Standards (Licensing and Registration of Food Business) regulations, 2011 : <u>http://www.fssai.gov.in/Portals/0/Pdf/Food%20safety%20and%20Standards%20%28Licensi ng%20and%20Registration%20of%20Food%20businesses%29%20regulation,%202011.pdf</u>
- <u>Kitchen size is not adequate:</u> Smooth and coordinated traffic flow in a Kitchen is very important. As per the guidelines for "Approval of Restaurants by Tourism Dept, Govt. of NCT, Delhi"; <u>kitchen size should be about 300 sq ft. with at least 3 sinks</u>.

Suggestions for the consideration of the university

Three times meal for over 50 people is being cooked regularly in the kitchen. The existing kitchen was not designed for cooking and also there is a space crunch. This cannot ensure

adequate and consistent hygiene and cleanliness by the staff. Secondly, in case of external inspection, the current design of the kitchen will not be found suitable. Moreover, absence of dishwasher and adequate cutlery <u>increases the solid waste due to rampant use of disposable plates</u> etc.

University is now offering a substantial business to a caterer. <u>It may be an attractive business</u> <u>proposition to any food chain/restaurant.</u> Therefore, selection of the caterer should be based on competitive bidding every year and the space provided to the caterer be either charged (as rent) or it should result in the form of subsidized pricing of food served to students.

Option I: Explore the interest from prominent food chains having their own centralized kitchen (for eg. Café Coffe day, Nirulas, kitchens serving airlines etc.) so that the food is cooked at some other location and the existing kitchen is used only for the purpose of heating/final dressing of food.

Option II: Design and construct a proper kitchen with dish washer and invite caterers on a competitive basis through open tenders every year.

6. Laboratory

A set of recommendations were made to lab-managers of research laboratories on Aug 21, 2015 and they were being followed. There are no issues currently with the waste management and safety procedures.

There is a need for provision of a fume hood in the Environment laboratory at 3^{rd} floor for proper venting of noxious fumes.

Information: The committee, hereby, informs that from the year 2014, SMS water Grace BMW Ltd , Directorate of Health Services (DHS), is duly authorized by DPCC (Delhi Pollution Control Board) under the rule of 8(4) to collect the bio-hazardous waste for appropriate treatment.

7. Other Hygiene and health related matters.

- There is often bad odour around toilets near L001.
- Indoor air quality needs to be monitored, especially for CO, CO₂ and formaldehyde. CEE group of TERI/Dr Suresh Jain can be approached for this. Many people have complaints which are similar to that of sick building syndrome.
- In PhD scholar room (4th floor) there are no fans. Students are present in PhD room till 8 pm and when AC is switched off at 5 pm, it becomes difficult for them to continue.

Summary

- 1. Inspection of wastewater drainage, operation of STP and wastewater recycling
- 2. Promoting waste segregation, replacement of bins at some locations and installation of a vermi-composting plant. Total cost INR 15000/-.
- 3. Fume hood in the 3rd floor laboratory. Total cost INR 130000/-.
- 4. Disposal of sanitary waste from washrooms along with biotechnology laboratory waste.
- **5.** Indoor air quality monitoring.

It is suggested that a meeting between the Administration and the hygiene committee members be held in order to understand the recommendations of this report and the second meeting be held immediately after execution of agreed tasks.

Provision of bins in the University

- 1. Bins currently provided at the personal desks (for e.g in the faculty rooms), environmental laboratories, solar laboratory, hostel rooms will remain as it is.
- 2. 2nd floor of the Administrative block (near coffee machine), 3rd floor of the cafeteria block, one on each floor of the academic block, student activity room and in the Amphitheater the bin design is shown in Figure A1.



Specifications

- 1. Dual bin, each bin to have a capacity of about 5 litres, made of HDPE/wood without sharp edges.
- 2. Each bin to have a label for "organic" and "recyclable" material (with example).
- 3. Sweepers of the university should sort and dispose the waste collected from bins at personal desks into the respective bin

Figure A1: A suggestive design of bin

3. Washrooms (especially women) is shown in figure A2.



Specifications

- 1. A standard bin of similar design can be purchased from the market.
- 2. Capacity: about 5 liters

Figure A2: A suggestive design of bin in washrooms

4. Biotechnology laboratory (Figure A 3)



About 10 litre capacity

5. Cafeteria (Ground and first floor): Figure A4



Figure A4: Suggested design of bin with clear marking and each bin to have a capacity of 20 litres.

6. Kitchen: Figure A5



Figure A5: Two bins each with a lid and <u>with wheel base</u>, one near wash sink and the other near stove. The lid design should be such that the lid can remain open on its own for a longer duration. Capacity of each bin should be about 20 litres.

7. Garden area (given below, as this bin will not obstruct watering activity and is easily movable).

