# 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 – A

### I. Details of the Institution

	-				
1.1 Name of the Institution	TERI UNIVERSITY				
1.2 Address Line 1	10, INSTITUTIONAL AREA				
Address Line 2	VASANT KUNJ				
City/Town	NEW DELHI				
City/10wii					
State	DELHI				
State					
D' C 1	110070				
Pin Code	110070				
	Registrar@teriuniversity.ac.in				
Institution e-mail address	· ·				
	011 71000202				
Contact Nos.	011-71800222				
	DR. LEENA SRIVASTAVA				
Name of the Head of the Institutio	n: DR. LEENA SKIVASTAVA				
Tel. No. with STD Code:	011-26122222				
Mobile:	9811009260				

Nan	ne of the I(	QAC Co-ordii	nator:	DR. ARU	N KANSAL				
Mol	oile:			92133730	000		]		
IQA	AC e-mail a	address:		akansal@teriuniversity.ac.in					
1.3	NAAC Tı	rack ID (For	ех. МНСО	GN 18879)					
	(For Exan This EC n of your in	ecutive Com nple EC/32/A o. is availabl stitution's Ac	&A/143 da e in the rig	ted 3-5-200 ht corner- b Certificate	)4.	A/66 dated 23-03	3-2013		
1.5	Website a	ddress:		www.teri	university.ac.in				
	W	eb-link of th			ww.teriuniversity				
1.6	Accredita	tion Details							
	Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period			
	1	1st Cycle	А	3.26	2013	5 YEARS			
	2	2 <sup>nd</sup> Cycle							
	3	3 <sup>rd</sup> Cycle							
	4	4 <sup>th</sup> Cycle							
1.7	Date of Est	ablishment o	f IQAC :	Ε	DD/MM/YYYY	February, 2016	5		
1.8	AQAR for	the year (fo	r example :	2010-11)	2016-17				
			_		d to NAAC after 0-11submitted to				
	ii. AQAR	R 2014-15 sub R 2015-16 sub	mitted on	15/11/2015	(DD/MM/YYYY (DD/MM/YYYY (DD/MM/YYYYY	YY)	·V)		

1.10 Institutional Status				
University	State	Central _	Deemed ✓ Priv	ate
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 🗸	Men	Women	
Urban	<b>─</b>	Rural	Tribal	
Financial Status Grant-in-	aid	UGC 2(f)	UGC 12B	
Grant-in-aic	l + Self Financ	cing	Totally Self-financing	✓
1.11 Type of Faculty/Programme				
Arts Science	Commerce	e Law	PEI (Phys E	du)
TEI (Edu) Engineering	g 🗸 Heal	Ith Science	Management	$\checkmark$
Others (Specify)				
1.12 Name of the Affiliating Universi	ty (for the Co	lleges)	NOT APPLICABLE	
1.13 Special status conferred by Cent	ral/ State Gove	ernment U	GC/CSIR/DST/DBT/IC	MR etc.: <b>N.A.</b>
Autonomy by State/Central Govt.	/ University			
University with Potential for Exce	ellence		UGC-CPE	
DST Star Scheme			UGC-CE	
UGC-Special Assistance Program	me [		DST-FIST	
UGC-Innovative PG programme	s [		Any other (Specify)	
UGC-COP Programmes				

2. IQAC Composition and Activi	<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	
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:  Non-Teaching Staff  Students  2.12 Has IQAC received any funding from UGC	No. Faculty Alumni Others  during the year? Yes No
If yes, mention the amount	
2.13 Seminars and Conferences (only quality rela	ted)
(i) No. of Seminars/Conferences/ Workshop	os/Symposia organized by the IQAC:
Total Nos. 43 International	National State Institution Level
(ii) Themes	
2.14 Significant Activities and contributions made	e by IQAC
IQUAC Report enclosed (Annexure 1)	

	2.	15	Plan	of A	Action	bv	<b>IOA</b>	C/C	Outcor	n
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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 \*

Achievements
the year as <b>Annexure 1A.</b>
tutory body Yes No
ate Any other body
taken
t

# Part – B Criterion – I

### I. Curricular Aspects

1.1 Details about Academic Programmes

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				

<ul><li>.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options</li><li>(ii) Pattern of programmes:</li></ul>							
Patto	ern		Number o	of prog	grammes		
Seme	ester	✓					
Trime	ester						
Ann	ual						
1.3 Feedback from stakeholders* (On all aspects)	Alumni		Parents		Employers Students ✓		
Mode of feedback:	Online	<b>✓</b>	Manual	<b>✓</b>	Co-operating schools (for PEI)		

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	An	v new	Der	oartment/	Centre	intro	duced	during	the	vear.	If ves	. give	details

Dept.of Post Graduate Legal Studies
Dept.of 1 ost Graduate Legal Studies

<sup>\*</sup>Please provide an analysis of the feedback in the Annexure 2

### Criterion - II

### 2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
54	34	8	8	4

2.2 No. of permanent faculty with Ph.D.

50	
----	--

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

Asst.		Associa	ite	Profes	sors	Others	3	Total	
Profes	sors	Profess	ors						
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.

27	Total No.	of actual	teaching	dance
Z. I	TOTALINO.	or actuar	teaching	uavs

during this academic year

Approx.230

2.8	Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination,	Open Book Examination			
	Double Valuation, Photocopy, Online Multiple Choice	O.			
2.9	No. of faculty members involved in curriculum restructuring/revision/syllabus development	All			
as member of Board of Study/Faculty/Curriculum Development workshop					
2.10	Average percentage of attendance of students	87%			

### 2.11 Course/Programme wise distribution of pass percentage :

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

<sup>\*</sup> 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)

### 2.14 Details of Administrative and Technical staff

Category	Number of	Number of	Number of	Number of
	Permanent	Vacant	permanent	positions filled
	<b>Employees</b>	Positions	positions filled	temporarily
			during the Year	
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:

Range	0.396- 8.05	Average	2.758	h-index	3	
Nos. in SCOPU	S 83	_				

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

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned	Received
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./ <b>No. of bo</b>	oks published 1) With ISBN No.	1 Ch	apters in	Edited Book	S 14	
	ii) Without ISBN No	. 1				
3.8 No. of Un	iversity Departments receiving fund	ls from:				
	UGC-SAP 01	CAS	D	ST-FIST	01	
	UGC-SAP 01	CAS	D <sub>i</sub>	31-1/131		
	DPE		D	BT Scheme/f	funds 01	
3.9 For colleg	es Autonomy	СРЕ	D.	BT Star Sche	eme	
	INSPIRE	СЕ	A	ny Other (spe	ecify)	
3.10 Revenue generated through consultancy NIL						
3.11 No. of co	onferences organized by the Instituti	on				
Level	International	National	State	University	College	
Number	8	23		,		
Sponsoring	USAID, UNEP, University of	DST-SERB				
agencies	UK, IDRC-Canada, DAAD,	Global				
	RUB, Embassy of Kazakhstan,	Challenge				
	ICEWARM, UNU	Foundation,				
		Cross-				
		CARIAA,				
		HUDCO,				
		MoES				
3.12 No. of fa	culty served as experts, chairperson	s or resource per	rsons	13		
		8	1		4	
3.13 No. of co	ollaborations Internation	nal Nati	onal	Any	other	
13						
3.14 No. of lin	nkages created during this year					
3.15 Total bud	dget for research for current year in	lakhs :				
From Fund	ling agency 500 L From N	Management of U	Universit	y/College	07.00 L	
Total	507.00 L					

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	
National	Granted	
International	Applied	NIL
International	Granted	NIL
Commonaiolicad	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	)	_	_	_		-	-				
	who are	culty from the Ph. D. Guides ents registered			32 115							
3.19 N	No. of Ph	n.D. awarded b	y faculty fro	om the l	Institution		1	2				
3.20 N	No. of Re	esearch scholar	rs receiving	the Fell	lowships	Newly	enrol	led + ex	xisting o	nes)		
		JRF 3	SRF	7	Project	Fellov	ws		Any other	er	[	
3.21 N	No. of st	udents Particip	ated in NSS	events	: <b>N.A.</b>							
					Unive	rsity le	evel		State le	evel	[	
					Natio	nal leve	el [		Interna	tional l	level [	
3.22 1	No. of st	tudents particip	oated in NC	C event	s: <b>N.A.</b>		_				L	
					Univ	ersity 1	evel		State 1	evel	ſ	
					Natio	nal lev	el [		Interna	ational	level	
3.23 N	No. of A	wards won in	NSS:	N.A.			L				L	
					Unive	rsity le	evel		State le	evel	ſ	
					Natio	nal leve	el [		Interna	tional l	level [	
3.24 N	No. of A	wards won in	NCC:	N.A.			L				L	
					Unive	rsity le	evel [		State le	evel	[	
					Natio	nal leve	el [		Interna	tional l	evel [	
3.25 N	No. of Ex	xtension activit	ies organize	ed:	N.A.		L				L	
	Univ	ersity forum		College	forum							
	NCC			NSS				Any	other			

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

### **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 (≥ 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)

	Existing		Newly	added	Total	
	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

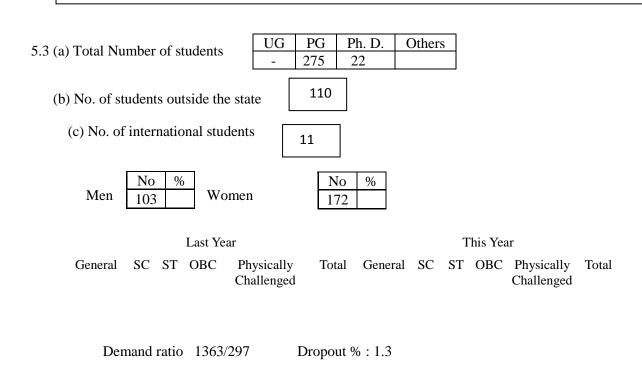
### 5. Student Support and Progression

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



5.4 Details of student support mechanism for coaching for competitive examinations (If any) NA
No. of students beneficiaries
5.5 No. of students qualified in these examinations
NET 3 SET/SLET GATE 1 CAT
IAS/IPS etc 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 eac academic year. This is followed by programme specific orientation programme conducted by th 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 the 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 facult member, the placement coordinator along with the Placement & External Relations Office 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 als scheduled.
No. of students benefitted All 5.7 Details of campus placement
On campus Off Campus
Number of Number of Students Number of Number of Students Placed Organizations Participated Students Placed Visited
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 Students Activities  5.9.1 No. of students participated in Sports, Games and other events : N.A.  State / University level National level International level
5.9.1 No. of students participated in Sports, Games and other events : N.A.

5.9.2 No. of medals /awards won by students in Sp	orts, Games and	other events: N.A.	
Sports: State/ University level National l	evel	International level	
Cultural: State/ University level National l	evel	International level	
5.10 Scholarships and Financial Support			
	Number of students	Amount	
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 received International/ National recognitions			
5.11 Student organised / initiatives :			
Fairs : State/ University level 6 National le	evel	International level	
Exhibition: State/ University level National le	evel	International level	
5.12 No. of social initiatives undertaken by the students	1		
5.13 Major grievances of students (if any) redressed: Bett	ter internet conr	nectivity	

### 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. Research-lead 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. Marks assigned for presentation/assignments etc. are also passed on 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)

6.5 Total corpus fund generated	Rs.1887	Lacs		
6.6 Whether annual financial audit	has been do	ne Yes 🗸	No	
6.7 Whether Academic and Admini	strative Auc	lit (AAA) has be	een done?	
Audit Type	Extern	al	Inter	nal
Ye	s/No	Agency	Yes/No	Authority
Academic	Zes .	BoS/AC	Yes	BoS/AC
Administrative Y	&	njay Rastogi Associates, New Delhi	Yes	Rajan K Gupta & Co., New Delhi
6.8 Does the University/ Autonomo		declares results v	within 30 days	:
For PG Pr	rogrammes	Yes 🗸	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 assignments etc. Evaluation and grading is done by the faculty coordinator of each 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

<sup>\*</sup>Provide the details in annexure (annexure need to be numbered as i, ii,iii)

Report of Environment Audit (Anna	exure 6)
Whether environmental audit was condu	ucted? Yes ✓ No
Any other relevant information the institu	ution wishes to add. (for example SWOT Analysis)
Opportunity	
<ul> <li>Great potential to play a signific</li> </ul>	cant role in (futuristic) sustainability education
<ul> <li>Potential to attract large number</li> <li>Scope for greater linkage with in</li> </ul>	
<ul> <li>Facilitate access to education in</li> </ul>	niche areas for all sections of society
<ul> <li>Strengthening the alumni netwo</li> </ul>	ork
Challenges	
<ul> <li>Nurturing academic and organis</li> <li>Attracting and retaining good fa</li> </ul>	
<ul> <li>Attracting and retaining good fa</li> <li>Promotion of research culture at</li> </ul>	
<ul> <li>Strengthening core competence</li> </ul>	in a constantly changing global and competitive
<ul><li>environment</li><li>Improving the placements of gra</li></ul>	aduating students
1 0 1	
Plans of institution for next year	
A stress on sustainable habitats and but hese become part of the smart cities can	
A stress on sustainable habitats and but hese become part of the smart cities can	
A stress on sustainable habitats and but these become part of the smart cities can be creating academic programmes and result of the stress of the smart cities of the	ampaign of the government.
A stress on sustainable habitats and but hese become part of the smart cities can be creating academic programmes and relational Hyderabad and Guwahati.	ampaign of the government.  research objectives for the upcoming campuses at
A stress on sustainable habitats and but these become part of the smart cities can be creating academic programmes and result of the stress of the smart cities of the	ampaign of the government.  research objectives for the upcoming campuses at
A stress on sustainable habitats and but these become part of the smart cities can be creating academic programmes and result of the smart cities	Name  LEWA CRIVAS TAVA  Signature of the Chairperson, IQAC
A stress on sustainable habitats and but these become part of the smart cities can be creating academic programmes and result of the smart cities	Name  LEENA CRIVAS 74-VA  Leen Divastos
A stress on sustainable habitats and but these become part of the smart cities can be creating academic programmes and result of the smart cities	Name  LEWA CRIVAS TAVA  Signature of the Chairperson, IQAC
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A stress on sustainable habitats and but these become part of the smart cities can be creating academic programmes and result of the smart cities	Name  LEWA CRIVAS TAVA  Signature of the Chairperson, IQAC



# 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. Activities & Contribution

- 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. Policies Reviewed

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
			D 1: 1 (.1	
			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. Academic Assessment of the University

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. Plan of Action

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)

**Employer Feedback(Campus Placement):-**

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					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 casual.			
						Analytical thinking		<b>√</b>										
						Attitude				<b>✓</b>								
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			у		Knowledge		<b>√</b>										
						Communication			<b>√</b>									
						Growing			✓									
						Passion for sustainability		<b>√</b>										
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	c es	Ofc ours e.	Ofc ours e.	Very Good	
	Servi ces					Communication			✓			This is						
						Attitude			<b>✓</b>			one of						
						Personal Attributes			v			the pres						
4	КРМ	Mana	Final	Pag	Business	PARAMMETERS	Exce	Ve	Co	Av	Poor	os plac e we wou ld like to visit alwa ys		Good	N.A.			
4	G	ger HR	Place ment	Rec ruit men t	Analyst	PARAMMETERS	llent	ry Go od	Go od	Av er ag e	Poor	Yes	Yes	qualit y of stude	Perhaps we could also			
														nts in the	expose them to			
														Econo mics	Business Platforms,			
														backg round	real world solution solving techniques and some experience /internship s with a corporate/			

5	Shakt	Gener	Final	Rec	Management	PARAMMETERS	Exce	Ve	Go	Av	Poor	Yes	Yes	It was	consulting co. may help. We have that part in the students were mostly theorotical Try to
3	i Pump s (Indi a)	al Mana ger	Place ment	ruit men t	Trainee	The approach to BDM	llent	ry Go od	od	er ag e	1001	res	ies	wond erful. Woul d like to	have the full strength of course.
	Ltd.					Communication skills		<b>√</b>						come back	
						Subject Knowledge			✓ ✓						
						attributes only									
6	India Infras tructu re	Direc tor	Final Place ment	Res earc h	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				<b>√</b>				last four years but	
						Content of Write ups				✓				has been disap pointi	
						Awareness on latest developments in the energy sector				<b>✓</b>				ng this year. Stude nts were	
														not well infor med about	
														the	
														the devel opme nts in the energ	

# 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)	XXXXXXX	67	41	1.29
	Business and taxation laws in infrastructure projects(MPL				
2	142)	XXXXXXX	5	4	2.67
3	Molecular plant physiology and metabolism(BBP 156)	XXXXXXX	19	16	2.8
4	Contracts Law and Management(MPL 144)	XXXXXXX	5	4	2.87
5	Production and operations management(PPM 187)	XXXXXXX	24	17	3.13
6	Plant biotechnology laboratory - Part 2(BBP 102)	XXXXXXX	19	16	3.15

7	Quality Management(BSI 184)	xxxxxxx	8	3	3.18
8	Regeneration and City Competitiveness(MEU 154)	XXXXXXX	12	11	3.27
	Digital image processing and information extraction(NRG				
9	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)	XXXXXXX	15	11	3.41
13	Applied numerical methods (thru MATLAB)(ENR 172)	XXXXXXX	36	30	3.45
	Basic course in environmental and resource economics(NRE				
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)	XXXXXXX	24	24	3.56
10	Technical Writing (Communication skills and technical	VVVVVVV	104	01	2.50
19	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)	xxxxxxx	13	12	3.79
28	Economics of Infrastructure and Pricing Strategies(BSI 124)	XXXXXXX	8	3	3.82
29	Water security and conflict management(WSW 182)	XXXXXXX	19	14	3.84
30	Principles of geoinformatics(NRE 172)	XXXXXXXX	67	58	3.85
31	Forest law and policy(MPL 158)	xxxxxxx	5	3	3.87
	Legal aspects of bidding and public private partnership(MPL				
32	148)	XXXXXXX	5	4	3.88
33	Renewable energy conversion technologies - II(ENR 126)	XXXXXXX	36	30	3.89
34	Fluid mechanics and turbomachinery(ENR 139)	XXXXXXX	36	30	3.9
35	Geoinformatics for Urban Development(MEU 172)	XXXXXXX	13	12	3.9
36	Aquatic eco-system management(WSW 154)	xxxxxxx	10	9	3.91
37	Renewable energy conversion technologies - I(ENR 124)	xxxxxxx	36	30	3.92
38	Research Methodology(MEU 176)	xxxxxxx	14	13	3.92
39	Air quality management(NRE 134)	xxxxxxx	43	42	3.95
40	City and Regional Planning and Management(MEU 152)	XXXXXXXX	12	11	3.95
41	Corporate Accounting and Reporting(BSI 128)	XXXXXXXX	8	3	3.98
42	Sustainable business strategy(PPM 107)	XXXXXXXX	25	17	3.98
43	Management of development organizations(MPD 153)	XXXXXXXX	31	31	4.02
44	Spatial data modelling and GIS applications(NRG 174)	XXXXXXXX	13	13	4.03
45	Corporate finance(PPM 122)	XXXXXXXX	33	22	4.04
46	Climate change and law(MPL 134)	XXXXXXXX	6	4	4.05
	Energy auditing, energy efficiency and energy			•	
47	conservation(ENR 114)	XXXXXXX	36	31	4.07
48	Legal aspect of business(PPM 158)	XXXXXXX	24	17	4.07
49	Mitigation of climate change(NRC 132)	XXXXXXXX	21	15	4.07

50	Econometrics(MPE 172)	xxxxxxxx	36	30	4.09
51	Environmental health and risk assessment(NRE 144)	XXXXXXX	41	40	4.09
	Seminar/clinic on contemporary issues in infrastructure and				
52	environment - II(MPL 102)	XXXXXXX	8	5	4.09
53	Infrastructure project finance law(MPL 146)	XXXXXXX	5	4	4.1
54	Advanced geo-informatics for water resources(WSW 175)	XXXXXXX	10	7	4.11
55	Management information systems(BSI 171)	XXXXXXX	8	3	4.11
56	Water quality management(NRE 142)	XXXXXXX	43	42	4.12
57	Indian economics and development(MPE 141)	XXXXXXX	36	30	4.14
58	Integrated impact assessment(MPD 145)	XXXXXXX	24	24	4.14
59	Management information system(PPM 171)	XXXXXXX	24	17	4.14
60	Renewable energy conversion technologies - II(ENR 126)	XXXXXXX	36	30	4.14
61	Quantative methods in management - 2(PPM 174)	XXXXXXX	25	17	4.15
62	Water audit and demand management(WSW 124)	XXXXXXX	14	9	4.16
63	Game theory(MPE 147)	XXXXXXX	37	30	4.2
64	Managerial economics - 2(PPM 142)	XXXXXXX	24	17	4.23
65	Renewable energy conversion technologies - I(ENR 124)	XXXXXXX	36	30	4.23
66	Air pollution and climate change(NRC 134)	XXXXXXX	14	11	4.24
67	Environmental economics(MPP 147)	XXXXXXX	24	17	4.24
68	Renewable energy conversion technologies - I(ENR 124)	XXXXXXX	36	30	4.24
	Climate change: Vulnerability, Impacts Adaptation &				
69	Resilience(NRC 182)	XXXXXXX	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)	XXXXXXXX	22	18	4.31
	Innovation and change management for infrastructure				
74	projects(BSI 132)	XXXXXXXX	8	3	4.31
75	Strategic communication and stakeholder engagement(BSI 103)	xxxxxxx	8	3	4.31
/3	Energy auditing, energy efficiency and energy		8	3	4.51
76	conservation(ENR 114)	XXXXXXX	36	31	4.32
77	Immunochemistry(BBP 130)	XXXXXXX	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)	XXXXXXX	35	29	4.36
80	Theory of environmental policy(MPE 144)	XXXXXXX	36	30	4.36
81	Thermodynamics(ENR 131)	XXXXXXX	36	31	4.37
	Population and health: Techniques of analysis policy				
82	perspectives(MPD 124)	XXXXXXX	34	33	4.38
83	Infrastructure policies reforms and law(PPM 151)	XXXXXXX	35	22	4.39
84	Law and policy for maps and remote sensing(NRG 160)	XXXXXXX	12	12	4.42
	Molecular cell biology - from genes to communities(BBP		T	T	
85	114)	XXXXXXX	19	16	4.42
86	Indian agriculture in a global setting(MPE 128)	XXXXXXXX	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)	XXXXXXXX	19	16	4.51
90	Statistics for the life sciences(BBP 112)	XXXXXXXX	23	16	4.53
91	Design of water supply and sanitation system(WSW 186)	XXXXXXX	9	6	4.55

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

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Final Feedback 81%

	Major 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	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,	Ministry of Earth Sciences, Govt. of India	Dr Anu Rani Sharma	15-Mar- 17	30-Apr- 17	1,10,000
2017 at TERI University.  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 collebaration	I	<b> </b>	<b>]</b>		
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

## **Events**

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 Resource	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	SWASH -2017	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

UNITXURE J.1

#### **Independent Auditor's Report**

Chartered Accountants

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

Now bahi

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

CA Sanjay Rastogi Proprietor (Membership No. 075033)

# TERI UNIVERSITY New Delhi Income & Expenditure Account for the year ended on March 31, 2017

	(Amount i		
As on 31.3.2016	As on 31.3.2017	Schedule	
			Income
81,078,473	92,421,972	4 (a)	Academic Receipts
17,476,048	17,248,215	4 (b)	Interest Receipts
40,038,140	44,959,302	4 (c)	Others Receipts
57,147,953	46,577,668		Receipts from Completed Research Projects
195,740,614	201,207,157		Total Income
			Expenditure
82,001,873	116,264,712	5	Salary
17,801,028	20,976,710	6	Academic Course Expenses
69,660,106	. 57,351,107	7	Office Contigencies & Miscellaneous
17,573,755	19,473,777		Expenditure of Completed Research Projects
1,964,326	3,416,989		Depreciation
189,001,088	217,483,295		Total Expediture
6,739,526	- 16,276,138		Excess of Receipts over Expenditure (Surplus)
6,739,526	- 16,276,138		Balance available for Appropriation
6,739,526	- 16,276,138		ess : Transferred in to Reserve & Surplus Account
64,246.849	70,986,375		Surplus/Deficit brought forward
70,986,375	54,710,237		Surplus/ Deficit Carried over to Income & Expenditure
	54,710,237	8	Surplus/ Deficit Carried over to Income & Expenditure  Significant Accounting Policies and Notes to the Accounts

Schedule 1 to 8 form an integral part of the Accounts

This is the balance sheet referred to in our report of even date

For Sanjay Rastogi & Associates

Chartered Accountants (FRN: 014056N)

A Sanjay Rastogi Proprietor

(Membership No. 075033)

Place : New Defhi

Date : 25 08 2017

Dhanraj Singh Finance Office Dr. Rajiv Seth Pro-Vice Chancellor

Dr. Leena Srivastava Vice Chancellor

		Schedu	Schedule 1 - Fixed Assets (Gross	sets (Gross)			CALCON COLUMN SOURCE	
Particulars	Rate	W.D.V.	Addit	Additions		Balance	Danraciation	77.07
The second secon	%	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	09	704,609	1,759,725	1,775,421		4,239,755	2,015,936	2,223,820
Computer (project)	09	68,295		38,773	1.	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	1	15,750	1.	1,762,973	264,446	1,498,527
Scientific Equipment	15	457,481			1.	457,481	68,622	388,859
Scientific Equipment (project)	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
Furniture (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		33,921	18,184		52,105			,
Capital Work in Progress - Guwhati Campus				10,707		10,707	1.	10,707
Capital Work in Progress - 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



Particulars	Rate	e W.D.V. Additions	Additions	ione	(Spannos)	Delease of		
	%	Ason	lace than	more those	1	palance	Depreciation	W.D.V.
		01.04.2016	180 days	180 days	Discarded	31.03.17	for the	As on
Somputer	8	704,609	1,759,725	1,775,421		4.239.755	2 015 936	2 223 840
Office Equipment	15	6,064,542	445,107	978.373		7 488 022	000000000000000000000000000000000000000	010101010
Scientific Equipment	15	457,481				457,481	68 622	388 850
umiture -	10	2,156,549	243,960	147,577		2,548,086	242,611	2.305.475
and - Delhi Campus		43,634,798				43,634,798		43,634,798
Sapital Work in Progress - Mysore Campus		33,921	18,184		52,105			
Capital Work in Progress - Guwhati Campus			•	10,707		10,707		10,707
Sapital 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
		Part of the state		-				
Particulars	Rate	W D.V	W.D.V. Additions	nded from Pro	ects)	Concled		2 (1)
The second secon	%	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 (project)	09	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
-uniture (Project)	9	34,726				34,726	3,473	31,253
Octal		7,187,875	4,060,083	2,415,040		13,662,998	1.791.389	11,871,609



TERI UNIVERSITY	As on 31,3,2017	As on 31.3,2016
Schedule 2: Current Asset	8	
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		100.001
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		
Schedule 3: Current Liabilities	A 1 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 -	- 18 Sept. 1
Sundry Creditors	12,966,646	13,776,36
Loan against FDR - Short Term	36,000,000	
Amount Payable to Students/OSF Students	703,641	16,21
Amount Payable to Staff		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	1,796,456	77,30
Group Insurance Claim Payable	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	206,350
Unutilised Contigent Grant - UGC	97,914	97,91
Unutilised Contigent Grant - DST	68,450	48,450
Grant Recoverable from DST (Inspire) for Students	59,800 -	151,840
Grant received from UGC for Students	15,000	16,000
Grant received from DST for Students	-	130,000
Grant received for Manish Manjunath Fellowship	7,400	10,000
Misc. Fellowship Received	529,900	-
Amount transferred from Previous Employer for Retirement Benefits	1,273,429	1,273,429
Outstanding Expenses	2,212,292	1,884,183
Provision - Faculty/Student Development Programme	471,049	-
Student Activities Fund Salary Payable	400,000	550,000
Advance Money Received for Field Work - Dr. Sapna Narula	70,570 254,200	56,893
Received from University of Guelph for PhD Student	237,281	237,28
Outies & Taxes Payable	1,685,330	1,210,340
Security Deposit Refundable - International Tractor Limited	25,307,250	1,210,540
Security Deposits Refundable	6,096,803	5,473,803
Security Deposit from Employee - House Lease	234,000	161,000
Security Deposit Hostel Students	375,000	290,000
Course Fee Received in Advance	149,672	385,000
Course - MA (PPSD) Travelling Expenses Payable	-	3,280,000
Total	213,706,371	129,291,596
Schedule 4: Income Receipts		
. Academic Receipts		
Course fees	89,532,946	79,168,451
ale of Application Form	2,889,026	1,910,022
	92,421,972	81,078,473
. Interest Receipts		
sterest Received on Deposits	15,930,840	13,581,512
terest Received on Reserve Bank of India Bond	-	2,380,000
terest Received on Tax Deducted at Sources		75,480
terest on Home Loan/Vehicle Loan/Education Loan	528,115	454,429
terest - Others	110,159	110,160
terest on Saving Bank	679,101	874,467
	17,248,215	17,476,048
. Other Receipts		
ponosorship	15,020,000	280,500
dmission Cancellation Fees	239,880	541,240
ent Received from Rental Premises	16,871,500	
mount Written back	2,078,314	530,860
iscellaneous income	1,439,110	1,483,227
	5,426,993	5.138,071
eceipts from Hostel Fees	5.7 (10.7) (10.7)	20.220
eceipts from Hostel Fees ecoveries against Notice Pay & Leave Encashment 35031 3	12,067	30,320
eceipts from Hostel Fees ecoveries against Notice Pay & Leave Encashment 23001 3 eceipts from Training, Seminar & Workshop	12,067 3,665,018	31,922,162
eceipts from Hostel Fees ecoveries against Notice Pay & Leave Encashment 35031 3	12,067	

TERI UNIVERSITY	As on 31.3.2017	As on 31.3.2016
Schedule 5: Salary Components		ELECTION AND
Pay & Allowances	100,637,395	70,089,301
Performance Linked Allowance	3,199,233	2,132,947
Employer's Provident Fund Contribution	8,266,152	5,996,441
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	ises	
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
Travelling Expenses	68,989	220,116
Total	20,976,710	17,801,028



TERI UNIVERSITY	As on	As on
	31.3.2017	31.3.2016
Schedule 7: Office Contingencies and I	/liscellaneous	CONTRACTOR DESCRIPTION
Annual Maintenance Contract	2,634,663	2,877,317
Alumni Meeting Expenses	7,011	39,650
Audit Fees	71,500	71,500
Annual Sports Day Expenses	21,289	23,729
Bank, Interest & Finance Charges	1,984,115	596,841
Building Maintenance Charges for Rented Premises	10,759,680	-
Celebration & Festival Exepnses	127,839	118,473
Computer Software and Repairs & Maintenance	747,733	1,016,115
Conveyance Expenses	156,012	63,662
Convocation Expenses	1,430,674	1,030,023
Entertainment, Meeting and Hostel Operating Expenses	2,272,819	2,959,198
Fraining, Seminar & Workshop Expenses	2,661,727	28,945,919
Electrcial & Hardware Items	599,650	383,766
Guest House Operating Exp.	181,728	178,338
firing charge - Vehicle	1,030,621	1,126,320
Fellowship and Honorarium - Others	91,177	56,578
nternal Grant Committee - Grant for Faculty	500,000	-
nternal Grant Committee - Grant for Students	200,000	
nsurance Premium	256,149	138,319
Email/Internet/LAN Network Expenses	1,015,621	1,166,940
Postage Expenses	103,331	72,494
Printing & Stationery	1,488,562	1,023,603
/lisc. Expenses	170,794	278,903
Provident Fund - Administration charges	510,991	397,077
Provident Fund - EDLI Charges	42,750	35,622
Provident Fund - Inspection Charge	2.412	2,409
lousekeeping Charges, Office Maintenance Charges & Other	2,412	2,409
Professional Charges	11,249,494	9,227,421
Repair & Office Maintenance - Building	1,264,357	1,001,595
Tembership Fee, Subscription and Registration Charges	255,687	534,483
epair & Maintenance - Furniture	614,766	675.348
epair & Maintenance Office Equipment	818,564	607,454
	202,927	
epair & Maintenance Vehicle		199,849
ecurity Service Charges	2,986,794	3,005,301
ervice Tax Paid	2,531,480	2,463,030
ransit Residence	521,688	702,758
elephone Expenses	376,673	496,371
ravelling Expenses	799,093	178,588
ice Chancellor - Car Running Expenses	233,612	85,797
mount Written Off	273,695	
/ater/Electrcitiy/Diesel A/c	6,153,429	7,879,315
Total	57,351,107	69,660,106



## 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 Furniture & Fixtures Car Computers



15%

#### 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 Dr. Leena Srivastava Vice Chancellor

As per Reports of even date attached:

For Sanjay Rastogi & Associates Chartered Accountants

FRN: 014056N

CA Sanjay Rastogi

Proprietor

Membership NO. 075033

Place: New Delhi Date: 25.08.2017 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, wastewater generated from cafeteria kitchen, admin and academic block is directly disposed into sewers. However, indications are that even

- hostel block is not fully connected to the <u>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.

Table 1: Water quality in sewage treatment plant

S.No	Water quality parameter	Inlet	Outlet
1	рН	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

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 sodium hypochlorite (disinfectant) in the treated water tank, they were found occasionally dosing sodium hydroxide.
- 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	% organic
		generation rate	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 <sup>rd</sup> floor, and elsewhere	Once daily in morning, not on Sundays and holidays	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. Perhaps University Administration should issue cloth duster every week and charge the cost from the caterer.
- 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: <a href="http://www.fssai.gov.in/Portals/0/Pdf/Food%20safety%20and%20Standards%20%28Licensing%20and%20Registration%20of%20Food%20businesses%29%20regulation,%202011.pdf">http://www.fssai.gov.in/Portals/0/Pdf/Food%20safety%20and%20Standards%20%28Licensing%20and%20Registration%20of%20Food%20businesses%29%20regulation,%202011.pdf</a>
- 2. <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.</u> with at least 3 sinks.

## 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</u> plates etc.

University is now offering a substantial business to a caterer. <u>It may be an attractive business 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, CO<sub>2</sub> 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 (4<sup>th</sup> 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 3<sup>rd</sup> 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 hygic members be held in order to understand the recommendations of this re second meeting be held immediately after execution of agreed tasks.	
Revised Guidelines of IQAC and submission of AQAR	Page 69

## **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. 2<sup>nd</sup> floor of the Administrative block (near coffee machine), 3<sup>rd</sup> 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 with wheel base, 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).

