

Royal University of Bhutan

Annual Report 2022-2023

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Abbreviation	Abbreviations				
BA	:	Bachelor of Arts			
BE	:	Bachelor of Engineering			
BSc	:	Bachelor of Science			
BTFEC	:	Bhutan Trust Fund for Environmental Conservation			
CDB	:	Construction Development Board			
CDRI	:	Climate Development and Research Institute			
CLCS	:	College of Language and Culture Studies			
CNR	:	College of Natural Resources			
CST	:	College of Science and Technology			
EU	:	European Union			
GCBS	:	Gedu College of Business Studies			
GCIT	:	Gyalpozhing College of Information Technology			
IFS	:	International Foundation for Science			
IIT	:	Indian Institutes of Technology			
JNEC	:	Jigme Namgyel Engineering College			
MA	:	Master of Arts			
MEd	:	Master of Education			
MoAF	:	Ministry of Agriculture and Forests			
MSc	:	Master of Science			
OVC	:	Office of the Vice Chancellor			
PCE	:	Paro College of Education			
PgCHE	:	Postgraduate Certificate in Higher Education			
PgD	:	Postgraduate Diploma			
PgDE	:	Postgraduate Diploma in Education			
PhD	:	Doctor of Philosophy			
RGOB	:	Royal Government of Bhutan			
RTC	:	Royal Thimphu College			
RUB	:	Royal University of Bhutan			
SC	:	Sherubtse College			
TVET	:	Technical and Vocational Education and Training			
SCE	:	Samtse College of Education			
STEM	:	Science, Technology, Engineering and Mathematics			
USA	:	United States of America			
FY	:	Fiscal Year			
UC	:	University Council			

1. Transformation of the University

RUB has been undergoing transformation in several of its colleges mainly driven by experts hired by His Majesty's Secretariat;

- 1.1 **Sherubtse College**: The College has been working throughout the academic year 2022-2023 to introduce three new programmes which are found much more relevant considering the national aspirations and global trends. These new initiatives are taking place under the guidance of consultants from Singapore.
- 1.1.1 The three programmes are planned to be launched in July 2023:
 - Bachelor of Economics and Political Science;
 - Bachelor of Digital Communications and Project Management;
 - Bachelor of Data Science and Data Analytics.
- 1.1.2 Along with the discussion on introducing new programmes the University also decided to discontinue the following arts and humanities programme at Sherubtse College while the four general science programmes are to be continued along with the three new programmes:
 - BA in English
 - BA in Political Science and Sociology
 - BA Population and Development Studies
 - BA Economics
 - BA in Media Studies
 - BA in History
 - BSc in Geography
 - BSC in Data Science
 - BSc in Statistics
 - BSc in Environmental Science
- 1.2 Gedu College of Business Studies: The College, through the assistance of international experts appointed by HMS is undergoing major changes mainly in the programme structure to

align itself to global trends and future prospects of Bhutan in the areas of business and commerce. Following are some of the initiatives underway:

- 1.2.1 All the three-existing programmes of the College i.e MBA, BBA and BCom are discontinued and following new programmes are being developed:
 - Bachelor of Business Management;
 - Bachelor of Marketing (Digital & Communication);
 - Bachelor of Human Capital Management;
 - Bachelor of Accountancy;
 - Bachelor of Economics and Finance;
 - Bachelor of Business Analytics.
- 1.2.2 Besides these programmes the college is also exploring possibilities of offering programmes in law, banking, finance and airport management.
- 1.3 **College of Science and Technology:** The College is also working under the leadership of external experts. Some of the notable developments are as follows:
- 1.3.1 Structural changes to the existing programmes of BE in Electrical Engineering, BE in Instrumentation and Control Engineering and BE in Electronics and Communication Engineering with a common foundation in first and second year;

- 1.3.2 Additionally, provision for majors in power engineering for BE in Electrical Engineering, advance computing, microelectronics and communications engineering in BE in Electronics and Communications Engineering, robotics, industrial automation in BE in Instrumentation and Control will be introduced;
- 1.3.3 The College will also offer BE in Mechanical Engineering transferred from JNEC which is an outcome of the transformation initiatives taking place at JNEC;
- 1.3.4 The College will also start offering a Bachelor in Software Engineering which will be fully selffinanced by students. The College will be seeking feedback on the curriculum from the National University of Singapore;
- 1.3.5 The College has begun the development of BE in Water Resource Engineering in collaboration with National Environment Commission to be launched in July 2023;

1.4 Jigme Namgyel Engineering College:

- 1.4.1 A discussion around the future of JNEC took place in the 41st UC meeting. It was decided that the College should focus on diploma programmes. With regard to the bachelor programmes the Council asked the University to assess the need and shift it to CST and phase out those that are not in demand or relevant anymore;
- 1.4.2 As per the directives of the UC the College has discontinued BE in Surveying and Geoinformatics programmes for now and shifted the BE in Mechanical Engineering to CST;
- 1.4.3 The College had three formal meeting with the TVET sector and is in continuous dialogue to ascertaining complementarity of the progarmmes offered and to avoid duplication;
- 1.5 **Two colleges of Education**: Paro and Samtse Colleges of Education initiated discussion with NIE, Singapore, for possible collaboration for capacity building in early 2022;
- 1.5.1 The aim was to conduct a comprehensive scoping exercise of the curriculum, pedagogy, learning process, assessment and transforming the management practices with the aim to prepare teachers for the 21st century learning;
- 1.5.2 Owing to the engagement of NIE, Singapore in other countries, a full-scale transformation could not materialize. However, an agreement was reached to work on STEM teaching-learning since this is a national priority;
- 1.5.3 Subsequently, NIE International, the official arm of NIE Singapore for consultancy and training conducted an intensive 2-week training programme focusing on best practice in STEM teaching learning and assessment for all STEM teachers in the two colleges of education.
- 1.6 **College of Language and Culture Studies:** The University had extensive discussion on His Majesty's Command to phase out programmes at CLCS and to repurpose the College;
- 1.6.1 The University in its 47th Academic Board meeting decided to phase out all programmes, hence the College will have no new intake starting the academic year July 2023;
- 1.6.2 The following possibilities for repurposing CLCS were discussed and a submission to be

made to His Majesty:

- A premier STEM school catering to the brightest of students from around the country interested in pursuing science in classes 11-12, facilitated by the best science teachers from schools in the country and some international teachers;
- A TVET Institute with required laboratories, workshops and other infrastructure focusing on creative industries under TVET;
- An engineering college specializing in traditional architecture, for example conducting the Bachelor of Architecture programme. Timber engineering is another programme that can be considered;
- Relocate the science programmes from Sherubtse College. The programmes would need to be tweaked to give students the skills and tools to solve real-world problems through a hands-on and real-world application of STEM education.

However, some of these were found to be not feasible and a final decision is still pending.

- 1.7 **Yonphula Centenary College**: As reported in the 41st UC meeting the YCC campus was closed in July 2022;
- 1.7.1 The College was started with the expressed need for the upgradation of teachers and offered MA in English progamme. Four cohorts of teachers underwent the programme, however, the MEd in English offered by Samtse College of Education was found more suitable for teacher candidates;
- 1.7.2 The campus was handed over to Desung Skilling Programme in early 2022;
- 1.7.3 The transfer of ownership of the land for the erstwhile YCC at Yonphula is being processed by Sherubtse College.
- 1.8. **Gyalposhing College of Information and Technology**: As reported to the 41st UC meeting the GCIT campus is shifted to Kabisa, Thimphu effective July 2023.
 - 1.8.1. The major architectural and structural drawings and designs for the construction of new infrastructure for the IT College is nearing completion.

2. Student Intake

In 2022, the University admitted 1994 students compared to 2021 students in 2021. The total intake has decreased by 27 students. A further comparison between government and self-financed students shows that intake in self-financed students has decreased by 8.2% compared to 1.3% in Government scholarship. The tables below provide details of intake for each college in the last two years.

College	Governm	ent Scholarshi	p Intake	Self	f-finance Inta	ake
	2021	2022	Difference	2021	2022	Difference
CLCS	157	157	0	7	7	0
CNR	142	152	10	50	50	0
CST	235	235	0	52	22	-30
GCBS	303	314	11	141	141	0
GCIT	97	98	1	3	3	0
JNEC	214	214	0	3	3	0
PCE	319	318	-1	30	30	0
SCE	165	165	0	25	25	0
SC	389	401	12	56	56	0
	2021	2054	27	367	337	30
			1.3% increase from 2021			8.2% decrease from 2021

Table 1: Student Intake Comparison 2021 and 2022

Note: 2022 Government Scholarship also includes 35 students supported under BoC, Madanjeet, King's Scholarship, Leadership Scholarship of Sherubtse College and Gyalpoi Tozay Scholarshi

3. Quality and Relevance of Programmes

Ensuring quality and relevant graduates is the primary focus of the University. To this end, the University, having put through the rigorous internal quality assurance process including in depth discussion with relevant agencies and studying the future development prospects of the country has launched a few new programmes. The University pays equal attention to phase out programmes that are no more relevant to the development prospects of the Country. Towards this end, the University has discontinued some programmes. The following table provides the list of programmes launched and discontinued in the academic year:

College		Programmes Launched	Year	Programmed discontinued
			launche d	
CLCS				 All the programmes: 1. BA in Dzongkha and Culture Studies 2. BA in Language and Literature 3. MA in Choekey and Dzongkha 4. BA in Bhutanese and Himalayan Studies
GCIT	(E ai 2. B D	achelor of Computer Science Block chain, Artificial Intelligence nd Full Stack) Sc in Digital Media and evelopment.	2023	
SC	1. B P 2. B C M 3. B	n Foundation for achelor of Economics and olitical Science, achelor of Digital ommunications and Project lanagement, achelor of Data Science and ata Analytics		 BA in English BA in Political Science and Sociology BA in Population and Development Studies BA in Economics BA in Media Studies BA in History BSc in Geography BSc in Data Science BSc in Statistics BSc in Environmental Science
JNEC		iploma in Construction upervision	2022- 2023	
CST			2022- 2023	
GCBS		achelor of Business lanagement;	2023	 Master in Business Administration Bachelor in Business Administration Bachelor in Commerce
	C 3. B M	achelor of Marketing (Digital & ommunication); achelor of Human Capital lanagement; achelor of Accountancy;		

Table 2: Programmes Launched & Discontinued

4	5. Bachelor of Economics and
	Finance;
	6. Bachelor of Business Analytics.

4. Research and External Linkages

Alongside teaching and learning, research is one of the core areas of the University. Since its inception, the University focused on developing and promoting research culture by building capacity and creating enabling conditions for academics to conduct research. Increasingly the University is contributing to topical national issues such as climate change, agriculture, education, construction, entrepreneurship etc.

4.1 Key Achievements in Research

Some of the notable achievements are:

- 4.1.0 CNR and SC are identified as the leading partner research institutions to NEC on climate change adaptation;
- 4.1.1 Center for Business Research and Entrepreneurship Development (CBRED), GCBS, works closely with Department of Employment & Entrepreneurship, MoICE to promote entrepreneurship culture and skills;
- 4.1.2 CST and JNEC partners with the CDB in producing research-based evidence for development of the construction industry in the country. The academic staff of the Colleges are the chief editors and core members of the Construction Journal of Bhutan of CDB;
- 4.1.3 The two Colleges of Education are key contributors to the development of the national curriculum of various subjects for the MoESD;
- 4.1.4 CLCS actively collaborates with the Dzongkha Development Commission in promotion of the Dzongkha language;
- 4.1.5 In terms of publications the University has published close to 100 peer reviewed research articles on topical issues such as organic agriculture, flood risk, architectural insights, seismic vulnerability of buildings in Bhutan, evaluation of land use change using GIS, language awareness and critical thinking, teaching learning practices, student wellbeing etc.

College	Peer -reviewed Publication
CNR	Bhutan's Challenge and Prospects in Becoming a 100% organic country
	A study on Invasive Plant Species in southwestern Bhutan
	Mapping Hydrological Recharge Areas in Southern Bhutan and Assessing the water quality of critical dry springs and lakes
CST	Offline and Online Practices for Assembly Language Programming With 8085 Microprocessor
	Evaluation of Land Use/Cover Change and Urban Sprawling Pattern Using Remote Sensing and GIS: A Case Study in Thimphu, Bhutan
	Performance assessment of data-driven water models using water quality parameters of Wangchu River, Bhutan
	Debunking seismic vulnerability of Bhutanese buildings
	Multi-hazard zoning for national scale, population risk mapping: A pilot study in Bhutan Himalaya.
	Software Defined Networking: A Case Study in College of Science and Technology (CST).

Table 3. Peer reviewed paper published in FY 2022-2023

	Architectural Insights and City Profile of Phuntsholing Bhutan.
	Reconstructing Missing Data in Hydro-Meteorology using Machine Learning: A Case in the Himalayan Kingdom of Bhutan.
	Nature-Based Resilience: Experiences of Five Cities of South Asia
	Assessing Flood Risk in Thimphu: Analyzing Contributing Factors Through Urban Flood Module.
	Runoff Characteristics based on Geomorphological Instantaneous Unit Hydrograph over Humid Region of Himalayas of Bhutan.
	A Comparative Analysis of Gridded Precipitation Data in the Himalayan Region of Bhutan.
	Assessment of potential present and future glacial lake outburst flood hazard in the Hunza Valley: A case study of Shisper and Mochowar glacier.
	Identification of Inconsistencies in Historic Rainfall Records of the Himalayas of Bhutan.
	Slope Stability Analysis under Different Loading Conditions using a Numerical Method (FLAC/Slope 2D)
	Assessment of the Challenges and Opportunities of Women in the Construction Industry of Bhutan.
	Psychological Impact during COVID-19 pandemic: A web-based cross-sectional study among students studying at the College of Science and Technology (CST), Phuentsholing, Bhutan.
	Evaluation of Liquefaction Potential of Kolkata City, India: A Deterministic Approach
	Evaluation of Dynamic Rating Curve Approaches to Estimate Discharge using Ultrasonic Sensors: A Case Study at OmChhu in Bhutan.
	Thailand COVID-19 pandemic data analysis using big data technology.
CLCS	૨૨૫ વેષ વાબદ : ફે. ફેંદ : ગ્રે છેદ : મ વાબુય : ઢવ : વ દ : બુ. મુન રૉય : બંદ : લરૂય : લરૂય : લરૂય : લરૂય : છે મુન ! લુદ શ
	Linguistic Landscape, critical language awareness and critical thinking; promoting learner agency in discourses about language
	The Study of Ethnobotanical Uses by Local Healers in Taktse Chiwog from Central Bhutan
	COVID-19 Pandemic and Environmental Pollution: A Blessing in Disguise for Southern-Asian
	તેષાય સુર છે ફગ નુકેલે દે સુંત સું વાયર લુદ વલે ત્વાર જય
	Case-marking in Khengkha, a language of central Bhutan
	न्दुः अः स्वयः स्टः पीः श्रः क्यून् त्यान् स्वयः प्र
	Ĕંદ્રાયતે છું જેવા અજા શુક્ત થયે કે
	ૹ૱ૼ૱ૹૡૻૻ૽ૼૢૢૢૢૢૢૢૢૢઌૻૻૡૻૻૹૻ૾ૡૻ૽ૡ૾ૺૡૡૡ૾ૺ૱ૡૢૻૡ૽ૻૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡ
JNEC	Spatiotemporal variation of landslide using the projected rainfall data from climate change scenario
	Free nitrous acid (FNA) pretreatment enhances biomethanation of lignocellulosic agro-waste (wheat straw)
	Delineating groundwater potential zones using an integrated geospatial and geophysical approach in Phuentsholing, Bhutan
	Energy Analysis and the Determination of the Resonant Frequency of a Custom-Designed Scientific Oscillating Body

	Optimal Sizing and Placement of Distributed Generation in Eastern Grid of Bhutan Using Genetic Algorithm
	ANN Based MPPT Using Boost Converter for Solar Water Pumping Using DC Motor
	Analysis of Isolated Phase Windings and Permanent Assists High Energy Efficient Hybrid-Reluctance (HR) Motor for Electric Vehicle
	Open-Source intelligence and dark web user de-anonymisation
GCBS	Problems and the prospect of rural poultry farms in Bhutan: a study from a value chain perspective.
	Socio-economic Sustainability of Organic Farming in Bhutan: from the Perspective of Farmers Group in Thimphu, Chhukha and Paro
	An Empirical Analysis of Perception of The Bhutanese Banking Customers Towards the Adoption of Digital Banking.
	The influence of social media marketing on purchase intention: The mediating role of brand equity.
	Crisis Leadership: The Cognitive-Affective Personality Traits Approach.
	The dynamics of employer branding and the employer brand.
	Organizational Culture and Learning Organization: An Empirical Study of the Colleges in Bhutan.
	A study on challenges of the passenger transport system in Bhutan.
	Acceptance of Agricultural Market Information System (AMIS) among the farmers in Bhutan: An Empirical Investigation Using Technology Acceptance Model (TAM).
	Impact of Entrepreneurial Education on Entrepreneurial Intention of Students: Analysis of Bhutanese Business Colleges.
	Organizational Culture and Learning Organization: An Empirical Study of the Colleges in Bhutan.
	Factors Affecting Entrepreneurial Intention of the Female Students of Business Colleges of Bhutan: Applying the Theory of Planned Behaviour.
	Digital Metamorphose of Banking Industry: Cloud Banking.
PCE	Exploring Bhutanese primary school teachers' technological knowledge.
	ૹૹૼઽૻૹૻૹૼૼૼૼૼૡૻૹ૾ૣઌૼૹ૿ૣઌૼૹૢ૿ૡૺૡૹ૾ૺૹ૾ૺૻઌૣ૽ૡૡૺૺૹૡૹૻૡૡૢ૾ૡૼૼૢૹૻૣૡૢૺૻૡૼૡૹ૽૿ૡૢૺૻૡૡૻૹ૽૿ૡૢઌૡૹ૽૾ૡૡૺૡ
	Educational Values in Complex Systems: An Introduction to the Educational Values Evaluation and Design Framework and a Case Study of Inclusivity in Bhutan.
	Bhutanese Pre-service Teachers' Self-Efficacy Beliefs towards Teaching Secondary Mathematics
	Psychological well-being of college students in The Royal University of Bhutan: a case study.
	Quality assurance for higher education under covid-19 pandemic and beyond in the Asia- Pacific Region
	Psychological well-being of college students in The Royal University of Bhutan: a case study.
	Using a laser pointer to demonstrate the decrease in the wavelength of light in water
	Impact of Inclusive Schooling on a Child with Cerebral Palsy: A Case Study
SCE	The Status of STEM Education in Schools: A Case of Samtse Dzongkhag.

	Contextualizing and Infusing Gross National Happiness (GNH) Values Through Teaching Primary Schools Mathematics: Approaches and Relevancy.
	Effectiveness of simulation, hands-on and a combined strategy in enhancing conceptual understanding of the electric circuit: A comparative study.
	The Study on the Relationship between Students' Learning Motivation and their Achievement in Physics.
	Physics Teachers' Reflective Practices in Middle and Higher Secondary Schools: A Case Study.
	Implementing design thinking in the teaching and learning selected biology lessons in a Bhutanese higher secondary classroom.
	Factors determining the motivation of staff and students seeking counseling services.
	Secondary Science Students' Attitude Towards Biology in a Higher Secondary School in Punakha Dzongkhag.
	The effects of teaching biology concepts with interactive animated video in secondary school.
	Exploring Physics Teachers' reflective practices and the challenges.
	Effectiveness of Simulation in Teaching Geometrical Optics.
	Introducing the Design Thinking Approach for Teaching and Learning at Tendruk Central School in Samtse Dzongkhag.
	A Place-Based Approach to the Praxis of Ethnomathematics Education: Investigating Woven Bamboo Doko of Southern Bhutan.
	Psychological well-being of college students in The Royal University of Bhutan: a case study.
	Academic Performance in Stem Subjects Among Secondary Boarding and Day Students in Lhuentse.
	Understanding the Relationship between Grade X Students' Metacognitive Skills and Mathematics Performance: A Correlational Study.
SC	A review of torrent frogs (Amolops: Ranidae) from Bhutan, the description of a new species, and reassessment of the taxonomic validity of some A. viridimaculatus group species aided by archival DNA sequences of century-old type specimens.
	An annotated checklist of the Vespidae (Hymenoptera: Vespoidea) of Bhutan with new records.
	Understanding COVID-19 response by twitter users: A text analysis approach.
	Pollinators of Home Garden Fruit Vegetables Along the Altitudinal Gradient in Kanglung Gewog, Trashigang, Bhutan.
	Pollinators of Epiphytic and Terrestrial Orchid Species in Bhutan.
	Phytodiversity Estimation of High-altitude Pastureland Above Yonphula, Kanglung Gewog, Trashigang Dzongkhag.
	Study of Diseases Caused by Phylloplane Mycoflora of Selected Orchids in Bhutan.
	Study of Fungal Diseases of Ornamental Plants of Sherubtse College Campus, Kanglung.
	Study of Pollination Ecology of Selected Orchids of Kanglung, Trashigang.

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A Study of Diversity of Pathogenic Fungi on Herbaceous Flora of Kanglung, Trashigang .
Total Factor Productivity and Sources of Long-Term Growth in the Bhutanese Rice Production.
Persistent Rise in Demand for Firewood in Bhutan? An Unbalanced Panel Data Analysis 2003-2017.
Analysis of the Technical Efficiency of Rice Production in Radhi Gewog, Trashigang District, Bhutan: A Stochastic Frontier Approach.
Energy Analysis and the Determination of the Resonant Frequency of a Custom-Designed Scientific Oscillating Body.
Lichens as spatially transferable bioindicators for monitoring nitrogen pollution.
Knowledge and attitude on sexually transmitted infections and contraceptive use among university students in Bhutan.
 Hydrogeochemical and biological assessment of spring and stream water quality for its suitability for drinking in Kanglung locality, Trashigang, Bhutan.

4.2 Research Centers

The establishment of research centers over the years have helped the Colleges to coordinate research activities, attract external grants and streamline research activities according to the focus areas of the College. As of 2022 there are 17 research centers in the Colleges.

Table 4. Research Centers

	Name of Centre
College	
CLCS	Bhutan & Himalaya Research Centre
0103	Centre for Buddhist Studies
	Centre for Rural Development Studies
CNR	Centre for Environment and Climate Research
	Centre for Sustainable Mountain Agriculture
007	Centre for Renewable and Sustainable Energy Development
CST	Centre for Disaster Risk Reduction and Community Development Studies
GCBS	Centre for Business Research and Entrepreneurship Development
JNEC	Centre for Appropriate Technology
JNEC	Centre for Lighting and Energy Efficiency Studies
PCE	Centre for Educational Research and Development
SCE	STEM Education Research Centre
	Centre for Innovation in Educational Practice and Research

	Center for Archaeology and Historical Research
Sherubtse	Centre for Climate Change and Spatial Information
	Center for Population and Development Studies
	Center for Science & Environmental Research

4.3 Research Journals

Over the years the University enhanced research publication. As of 2022 the University has 12 journals in publication.

Table 5. Research Journals

College	Journals
CLCS	Rig-mdzod-dus-dep
0200	International Journal for Bhutan and Himalayan Research
CNR	Bhutan Journal for Natural Resources and Development
CST	ZORIG MELONG - Technical Journal of Science, Engineering and Technology
GCBS	Bhutan Journal of Business and Management
	Journal of Applied Engineering, Technology and Management
JNEC	Thruel Rigsar Toed
DOF	RABSEL
PCE	Journal of Educational Action Research
SCE	Education Innovation and Practice
Sherubtse	Sherub Doenme
OVC	Bhutan Journal for Research and Development

4.4 External Linkages

Linkages with reputed international universities and institutions have greatly contributed to enhancing the visibility, credibility, and quality teaching-learning, research quality and also capacity development of the University academics. It has also contributed to a meaningful cultural immersion experience for students.

Table 6. Existing MoUs with External Universities/Institutions

SI. No.	Name of the University	Name of Country
1	Symbiosis International University	India
2	Calcutta University	India
3	NDLI (IIT Kharagpur)	India
4	IIT BomBay	India
5	IIT Delhi	India
6	IIT Kanpur	India
7	National Institute of Technology	India
8	IIT Roorkee	India

9	South Asian University	India
	School Corporation Shimada Gakuen Fukuoka Kokudo Kensetsu Technical	
10	College, Japan	Japan
11	The School For Field Studies, US	USA
12	ECOLOG Institute for Social-Ecological Research and Education, Germany	Germany
13	University of Alberta (UAlberta), Canada	Canada
14	Department of Culture, Ministry of Home and Cultural Affairs, Bhutan	MohCA
15	South Asian Foundation	Delhi India
16	University of Oslo, Norway	Norway
	School of Engineering and Physical Sciences, Heriot-Watt University, Edinburgh,	
17	Dubai, Malaysia	Malaysia
18	The Naresuan University, Thailand	Thailand
19	Palacky University Olomouc, Czech Republic	Czech Republic
20	The Sustainability Laboratory, USA	USA
21	Maejo University, Thailand	Thailand
22	Naropa University, United States of America	USA
23	Kansai University, Japan	Japan
24	Lund University, Sweden	Sweden
25	University College Leuven-Limburg, Belgium	Belgium
26	University of Technology Sydney, Australia	Australia
27	University of New England, Australia	Australia
28	Edith Cowan University, Australia	Australia
29	Kyoto University	Japan

5. Human Resource Development

5.1 Total Staff Strength

RUB has a total of 518 academic staff and 447 administrative & technical staff. Academic staff includes 15 expatriates and 79 Bhutanese working on fixed term appointments, and 424 regular academic staff. The data indicate 64 regular academic staff with bachelor degree qualification, 308 with master degree qualification, and 47 academic staff with PhD qualification.

Table 7: Staff Strength

						Ac	adem	ic Staf	f									
	Acader (Bhuta	mics - Re nese)	egular				emic: tanes	s - Fixe e)	ed Terr	n		Expat Term)	riates (F	ixed	(Expats.)	S	ΓE	
COLLEGE / OVC	Diploma / Advanced Diploma	Bachelor	Master	PhD	Total Academic s (Regular)	Advanced Diploma	Bachelor	Master	РһD	Total Academics (Fixed Term)	Total Academics (Bhutanese)	Bachelor	Master	PhD	Total Academic (Exp	TOTAL ACADEMICS	TOT AL ADMIN. STAF	TOTAL STAFF
CLCS	0	1	33	1	35	0	0	0	0	0	35	0	0	0	0	35	43	78
CNR	0	16	24	14	54	0	5	1	1	7	61	0	0	0	0	61	54	115
CST	0	11	43	4	58	0	0	22	1	23	81	0	2	2	4	85	64	149
GCBS	0	3	39	0	42	0	2	2	0	4	46	0	2	2	4	50	30	80
GCIT	0	0	22	0	22	0	7	1	0	8	30	0	0	0	0	30	20	50
JNEC	5	7	32	0	44	0	6	5	0	11	55	0	0	0	0	55	64	119
PCE	0	12	35	14	61	0	1	3	0	4	65	0	1		1	66	29	95
SCE	0	2	27	11	40	0	0	0	0	0	40	0	0	0	0	40	33	73
SC	0	12	53	3	68	0	17	5	0	22	90	0	5	2	6	96	74	171
OVC																	36	36
Grand Total	5	64	308	47	424	0	38	39	2	79	503	0	10	6	15	518	447	966
Total																		

5.2 Professional Development

The Human Resource Division has implemented 46 long-term professional development programmes for the academic staff of the Colleges in the FY 2022-2023. They are undergoing their studies in different Universities.

Academic	ic								
College	Master	PhD							
GCIT	0	1	1						
CNR	4	5	9						
CST	7	0	7						
JNEC	5	0	5						
PCE	2	3	5						
SC	4	6	10						
SCE	2	3	5						
GCBS	1	3	4						
Total	25	21	46						

Table 8. Professional Development

5.3 Fund Support for Long Term Studies of Academic Staff

Implementation of long-term PD programmes has been largely supported through funding support from the Government and His Majesty's Scholarship. In addition, the University has also received gracious support from the Government of India, Australia, Japan and Denmark. Funding was also extended by the other countries through cost sharing modality. A number of slots were implemented through open scholarships secured by staff such as merit/research scholarships from universities and scholarships offered by different countries.

Source of Funding	Academics
RGoB Scholarship	17
HM's Scholarship	7
President scholarship	1
Japanese Development Scholarship	2
University of Tasmania, Australia	1
RGoB Scholarship & Prince of Songkla University	1
UNE IPRA Scholarship	2
International Research and UTS President's Scholarship	1
University of Groningen and RGOB Scholarship	1

MEXT Scholarship	1
DAAD scholarship	1
BKIND Project Scholarship	1
ETH4D scholarship	1
Inter disciplinary frontier Scholarship	1
Uppsala university Scholarship	1
CL4 STEM Scholarship	1
Self-funding Scholarship	2
Neru –Wangchuck Scholarship	1
RUB under HRD Scholarship	2
AIT & RGoB Scholarship	1
Grand Total	46

Table 9: Long Term Studies Funding Sources

5.4 Academic Staff Completing Long Terms studies

In the year 1st July 2022 to 30th June 2023, 7 academic staff have been conferred with Master degree and 3 academic staff with PhD upon successful completion of their studies. There are 10 academic staff who have reported to the Colleges and are to receive their degrees soon, which will help to address enhancement of academic qualifications of our faculty.

College/ OVC	Comple	ted St	udies	Reported to Colleg	e but pendir	ng completion
	Master	PhD	Total	Master	PhD	Total
CNR	4	3	7	0	0	0
CST	2	0	2	0	0	0
SC	1	0	1	0	0	0
Total	7	3	10	0	0	0

Table 10: Long term Studies completion status of academic staff:

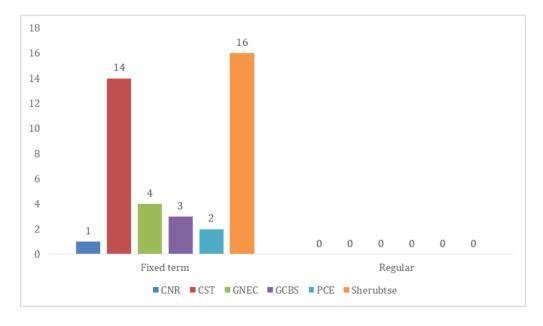
There are currently 46 academic staff and 8 administrative & technical staff on studies. 21 Academics undergoing PhD and 25 undergoing master programme. 3 administration & technical staff are currently undergoing master and 5 staff are bachelor degree as detailed below:

College/ OVC	Academi	cs			Admin & Teo	Grand Total	
	Master	PhD	Total	Bachelor	Master	Total	
CLCS	0	0	0	1	0	1	1
CNR	4	5	9	1	2	3	12
CST	7	0	7	1	0	1	8
GCBS	1	3	4	1	1	2	6
GCIT	0	1	1	0		0	1
JNEC	5	0	5	1	0	1	6
PCE	2	3	5	0	0	0	5
SCE	2	3	5	0	0	0	5
SC	4	6	10	0	0	0	10
Grand Total	25	21	46	5	3	8	54

Table 11: Staff on studies

5.5 Recruitment of Academic Staff

During the year July 2022- June 2023, a total of 40 academic staff were recruited and all are under fixed term category which includes 5 adjunct academic staff. Of the 5 adjunct staff, 2 have bachelor degree qualification, 1 has master qualification and remaining 2 have PhD qualification. The remaining 35, 25 staff have bachelor degree qualification, 7 have master qualification, 1 has postgraduate diploma and 2 have PhD qualification.



5.6 Academic Staff on Campus

The University has a total of 496 academic staff on campus excluding 46 on long term studies and two on extra ordinary leave.

Table 12. Current stock of academic staf	Table 12	Current	stock of	of acad	lemic sta	aff
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					Curre	ent Stock	of Acaden	nic Staff						
	Aca	idemics (Regular)	Academics - Fixed Term (Bhutanese)						Expatriates (Fixed Term)					
COLLEGE	Diploma	Bachelor	Master	Онд	Total Academics	Advanced Diploma	Bachelor	Master	РһD	Total	Master	DhP	Total Expatriates	L
CLCS	0	0	31	1	32	0	0	0	0	0	0	0	0	31
CNR	0	7	17	15	39	0	5	1	0	6	0	0	0	45
CST	0	4	43	5	52	0	22	1	0	23	3	1	4	79
GCBS	0	2	36	0	38	0	2	2	0	4	2	2	4	46
GCIT	0	0	21		21	0	7	1	0	8	0	0	0	29
JNEC	7	2	32	0	41	0	6	5	0	11	0	0	0	52
PCE	0	10	32	14	56	0	1	3	0	4	1	0	1	61
SCE	0	0	24	11	35	0	0	0	0	0	0	0	0	35
SC	0	6	49	3	58	0	17	5	0	22	4	2	6	86
Total	7	31	285	49	372	0	60	18	0	78	10	5	15	46 4

6. Finance

The consolidated financial report of the University for the FY 2022-2023 is presented below. The Financial Statements are based on IFRS / Bhutanese Accounting Standard for Small and Medium Sized Entities 2015.

6.1 Consolidated statement of Financial Position as of June 30, 2023
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Particulars	Note	June 30, 2023	June 30, 2022
ASSETS			
Current Assets			
Cash and cash Equivalents	4	379,999,456	326,192,071
Inventory	5	2,266,079	12,677,200
Advance /Prepayment	6	90,907,987	133,027,828
Financial Assets	7	240,021,205	229,348,644
Other Current Assets	8	13,622,640	22,812,470
Total Current Assets		726,817,367	724,058,214
Non-Current Assets			
Property Plant & Equipment	9	5,379,473,393	4,768,221,546
Financial Assets	10	128,905,400	151,775,182
Other Non-Current Assets	11	666,440,186	303,084,781
Total Non-Current Assets		6,174,818,979	5,223,081,510
Total Assets		6,901,636,346	5,947,139,724
LIABILITIES			
Current Liabilities			
Deferred Grant Income	12	460,919,251	380,078,237
Security Deposit payable	13	27,457,078	24,506,624
Provision Employee Benefit & Obligation	14	10,106,808	26,118,854
Other Current liabilities	15	225,418,720	265,369,156
Total Current Liabilities		723,901,857	696,072,871
Non-Current Liabilities			
Deferred Grant Income	16	4,414,957,639	3,759,381,373
Provision for Employee Benefit & Obligation	17	11,829,764	12,436,229
Other Non-Current Liabilities	18	33,385,425	75,790,007
Total Non-Current Liabilities		4,460,172,828	3,847,607,609
Total Liabilities		5,184,074,685	4,543,680,480
EQUITY			· · ·
Retained Earnings	29	1,717,561,659	1,448,364,848
Total Equity		1,717,561,659	1,448,364,848
Total Liabilities and Equity		6,901,636,344	5,992,045,328

6.2 Consolidated statement of Income & Expenditure as on June 30, 2023

Particulars	Note	June 30, 2023	June 30, 2022
INCOME			
Tuition Fee	19.01	1,040,295,408	1,117,064,286
Government grants	19.02	432,920,145	457,320,779
Research grants	19.03	23,178,773	9,332,399
Consultancy Services	19.04	5,524,841	1,036,789
HRD Grant -Income	19.05	37,448,168	28,492,400
House Rent	19.06	42,256,418	38,609,213
Income from Outsourcing	19.07	409,142	189,392
Income from hiring out of facilities	19.08	132,750	304,000
Miscellaneous Income	19.09	1,697,173	3,801,937
Interest incomes	19.11	19,347,815	23,091,481
Other Income	19.12	35,893,488	65,260,182
Gain from Revaluation of asset	19.13	-	50,437,156
Total Income	19	1,674,997,608	1,860,200,196
EXPENDITURE			
Pay & Allowances	20.00	707,373,895	720,640,202
Operational Expenses	21.00	171,241,629	179,170,213
Teaching & Learning	22.00	21,409,076	24,325,727
Student Facilities & Services	23.00	165,808,216	183,881,495
Training Seminar & Workshops	24.00	43,957,472	31,771,637
Research & Development	25.00	31,210,819	26,137,104
Program Development	26.00	5,672,818	7,082,277
Depreciation	27.00	214,830,779	220,579,522
Other Expenses	28.00	37,319,374	69,306,889
Total Expenses		1,398,824,078	1,462,895,065
NET INCOME		276,173,530	397,305,131

7. Challenge and Issues

- 7.1 National vision and direction on tertiary education: with the Tertiary Education Policy under review, there has been a lack of national direction on tertiary education. Without a clear national stance, it is challenging for the University to plan its future programmes, the scope of its expansion or consolidation and define an educational character the University should aspire to;
- 7.2 Funding and Financing of the University: the University has been working on a funding and financing mechanism that enables quality teaching learning for the last three years. Various options of funding models have been submitted to the UC, MoF and also to the Business Review Team, however, there has not been a conclusive decision thus far;
- 7.3 Revenue Generation: The University's Charter, Statues and other legal basis clearly states the need for the University to generate its own revenue to augment government funding. However, there is a lack of understanding on the scope and extent to which the University should generate its own revenue. This is critical given the University's status as a not-for-profit public entity;
- 7.4 Self-finance Students: Thus far the University was guided by the overall principle of equity in tertiary education with regard to taking in self-funding students. The primary reason for creating the provision was to enhance access and even the tuition fees charged are at a subsidized rate. However, increasingly the self-funding students are viewed as a source of revenue. Such shifts in thinking have not been debated at the national level;
- 7.5 Lifelong Learning: Providing lifelong learning opportunities for the citizens is one of the core mandates of the University. Within this mandate, the University is offering short-term programmes, programmes on alternative modes of learning, and postgraduate programmes. Additionally, postgraduate programmes are also a means to develop the overall culture of research and inquiry in the country. However, for a long time the University has not been able to garner financial support to offer postgraduate programmes. Despite this, the University has developed a number of postgraduate programmes but all the programmes have a very minimal number of students due to a lack of financial support in the form of tuition and stipend.
- 7.6 Study programmes on alternative modes such as distance learning and part time mode are not popular. This has arisen mainly because there is a general lack of recognition for programmes offered on alternative mode. The University is of the opinion that the alternative mode of learning needs to be encouraged given the upskilling, reskilling and knowledge upgrade demanded by overall development and the economic development of the Country.