

FY 2019-2020

Annual Report



Royal University of Bhutan



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Highlights

- RUB was confronted with challenges posed by the COVID-19 pandemic in the midst of the academic year. Despite the challenges, the University was able to continue with the online classes without much interruption.
- RUB is gaining momentum in internationalisation efforts. International student enrollment for both short-term and long-term basis has increased to 163.
- While employability has remained a huge concern, 62% of graduates have gained employment within a year of graduation.
- Enrolment onto postgraduate programmes has increased with a current enrolment number of 836 students.
- For long-term financial sustainability and to augment government support, RUB has continuously diversified revenue sources. The total amount generated from sources other than RGoB financing and student tuition has increased to 9.42% of the total annual budget.
- With research gaining momentum, the publication of high-quality research work has increased. Within the financial year, a total of 122 research papers were published in various peer reviewed journals.
- Intellectual contributions have also been on the rise, which indicates that RUB's research and services are meaningfully contributing to various policies and practices. It is recorded that about 12 scholarly outputs have made such contributions.
- RUB has been applying for grants from external funding agencies to promote research. Efforts were made by academics through submission of research proposals to various national and international agencies. During the financial year the University secured 52 externally funded research projects.
- Engagement with national and international agencies has also increased with academics participating in various decision-making forums. Despite the pandemic, RUB has seen about 58 academics engaged in various decision-making bodies making their share of expert contributions and learning from the field experiences to add value to their teaching.

- As a part of GNH inspired education, RUB continues to encourage student-led initiatives related to community services. RUB saw continuity of student engagement with the community with about 77% of students having participated in various services during the financial year. It is hoped that through their participation in various community services, students will learn to appreciate the value of community vitality, sense of service to the community and living in harmony with their surroundings.
- With dwindling job opportunities, RUB has now started to encourage the students to learn entrepreneurial skills to create jobs for themselves and for others. Graduates are encouraged to avail entrepreneurship opportunities. Three business incubation centers are in place in three different Colleges. This has resulted in some graduates becoming entrepreneurs soon after graduation. During the financial year, it has been recorded that a total of four startups have been initiated by graduates within one year of their graduation. This will not only help address unemployment among the youth but also help diversify the Country's local economy.

Quality and relevance of programmes

Ensuring good quality and relevant graduates is the primary focus of the University. To this end, the University strives to enhance effective teaching-learning practices, quality assurance systems and relevant academic programmes. Following are the important components and key activities carried out within the financial year to ensure quality and relevance of academic programmes.

Programme development and discontinuation

The University constantly develops new programmes that align with the overall socio-economic development of the Country. On the other hand, the existing programmes that are no longer relevant are discontinued.

The University ensures that each programme is developed in consultation with relevant organisations within the government, corporate, private and civil society organisations in the Country. The constituent Colleges developing new programmes conduct demand survey, assess human resource requirements and key policy documents to understand the needs of the new programmes. A comprehensive proposal of these new programmes are developed and then put through various internal processes of the University for discussion and approval.

Within the rigorous internal process of developing and launching a programme, the first key stage is deliberation in the Academic Planning and Resource Committee (APRC). The APRC, having studied and deliberated on the need, demand and preparedness (mainly in terms of human resources, library and infrastructure), accords planning approval of a proposed new programme. In this financial year the APRC accorded approval of the following programmes for further development:

Table 1: Programmes Accorded Planning Approval

College	Programme approved for further development
SCE	PgD in Contemplative Counseling Psychology
	MEd in History
PCE	BEd in Health and Physical Education
	MEd in Primary English
	MEd in Primary Social Studies
	MEd in Primary Mathematics
	MEd in Primary Science

CLCLS	BA in Language and Culture
	BA in Translation and Language
SC	BSc in Data Science
GCIT	BSc in Cyber Security and Digital Forensics
NRC	BA in English Studies
	BA in Tourism Management

It has been an important part of the University's internal quality assurance mechanism to continuously review the existing programmes. Programmes undergo rigorous assessment in terms of relevance to the changing socio-economic development needs. If found not relevant with the changing needs including policy changes the programme is discontinued. The University has discontinued the following programmes during this financial year.

Table 2: Programmes Discontinued

College	Programmes Discontinued
SCE	MA in Contemplative Counseling Psychology (Part-time)
	PgD in Education
	Diploma in School Laboratory Management
	BEd Secondary
	BEd Primary
	Diploma in Library and Information Management
PCE	BEd in Dzongkha
	PgDE Dzongkha
CLCLS	Diploma in Language and Literature
RTC	BA in English & Environmental Studies
	BA in Economics & Environmental Studies
	BA in English and Dzongkha
	Bachelor of Computer Application

After the completion of the planning approval process from APRC, approval of the programme document and details by Programme and Quality Committee, and successful validation of programme, approval of the Academic Board should be sought for launching. Having successfully completed the whole process of approval and quality checks, the following programmes were launched during the financial year:

Table 3: New Programmes Launched

Sl. No	Programme	College
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1	BEd Primary in Dzongkha	PCE
2	MEd in English	SCE
3	MEd in Geography	SCE

Quality assurance systems

Two key elements of RUB's quality assurance system are the validation and major review of programmes. While validation of programmes determines whether a new programme is of the standard and quality worthy of the conferment of an award from the University, review of programmes determines the health and relevance of a programme that has been in operation. Both the processes employ assessment by external experts along with academics of the University. The following programmes were validated and reviewed in the financial year:

Table 4: Programmes validated

Sl. No	Programme	College
1	Masters in Construction Management (Full-time)	CST
2	BA in Development Studies (Full-time)	NRC
3	PgDE in Dzongkha (Full-time)	PCE
4	MEd in Inclusive Education (Full-time)	PCE
5	BEd in Primary Dzongkha (Full-time)	PCE
6	MEd in English (Full-time)	SCE
7	MEd in Geography (Full-time)	SCE
8	Postgraduate Diploma in Education (Full-time)	SCE
9	Postgraduate Diploma in Contemplative Counselling Psychology (Full-time)	SCE

Table 5: Programmes reviewed

Sl. No	Programme	College
1	Bachelor of Architecture (Full-time)	CST
2	Diploma in Surveying (Full-time)	JNEC
3	BEd Primary (Full-time)	PCE
4	BSc in Environmental Science (Full-time)	Sherubtse College

Engagement of External Examiners

Along with validation and major review, the annual review using feedback from the students and external examiners is another major step in ensuring the quality and relevance of the programmes. This process helps maintain the relevance and enhance the pedagogical aspects of the programmes. The experts engaged as external examiners are mostly from the civil service, corporate, private and civil society organisations. Within this financial year the University appointed 48 external examiners approved by the Academic Board as given below.

Table 6: External Examiners Engaged

Sl. No	College	Numbers
1	CLCS	---
2	CNR	7
3	CST	4
4	GCBS	---
5	GCIT	3
6	JNEC	4
7	PCE	4
8	SCE	10
9	SC	9
10	YCC	1
11	RTC	4
12	NRC	2

University Wide Modules

The Department of Academic Affairs supports and coordinates annual review of the university wide modules. All the common modules have a home base. For example, the home base for the entrepreneurship module is GCBS. As usual the Department collected the annual reports for all the common modules from the Colleges and send it to the home base for incorporation of changes. The following are the University-wide modules currently offered.

Table 7: University-wide modules offered

Sl. No.	Module	Home Base
1	DZG101 Dzongkha Communication	Paro College of Education

2	ACS101 Academic Skills	Sherubtse College
3	EDP101 Entrepreneurship	Gedu College of Business Studies
4	GSE101 Analytical Skills	Gedu College of Business Studies

Teaching-learning activities

The University conducts centrally coordinated activities to enhance quality of the programmes and teaching-learning. The Center for University Teaching Learning (CULT) within the Department of Academic Affairs runs various trainings, workshops, and meeting to meet this mandate. Till date, 221 academic staff have been awarded the certificate of attendance to the induction programme on Introduction to University Learning and Teaching since its introduction in 2013.

Following were some of the major activities run by CULT in the financial year:

- 11th induction programme on Introduction to University Learning and Teaching was conducted at Gedu College of Business Studies from 3 – 13 July 2019. 16 new faculty members attended the programme.
- Likewise, 12th induction programme on Introduction to University Learning and Teaching was conducted at Samtse College of Education from 31 December 2019 to 10 January 2020. 25 faculty members from various colleges attended the programme.
- The CULT conducted its 3rd Continuing Professional Development programme for Dzongkha lecturers from 21 - 23 October 2019 at the College of Science and Technology. 18 Dzongkha lecturers attended the programme.
- The CULT also conducted its 2nd training on 'Fundamentals of Laboratory Management' from 25 – 29 November 2019 at Samtse College of Education. The training was facilitated by five faculty members from CST. 26 lab assistants and instructors attended the programme.
- As an initiative of the CULT, a 3-day training on 'Effective Communication in the Workplace' followed by one day workshop on Research For Life (R4L) was organised from 19 - 22 December 2019 at the College of Science and Technology. A total of 25 academic staff attended the programme from various member Colleges.

- CULT in collaboration with Lews Castle College, University of Highlands and Islands (UHI), conducted a three-day workshop on 'Higher Education Pedagogic Research to Improve Teaching and Learning' from 2 - 4 March 2020 at Samtse College of Education. 17 faculty members from member Colleges of the Royal University of Bhutan attended the workshop. The participants also presented their ongoing research work in the form of poster presentations.
- In order to support programme leaders in preparing programme document, a two-day workshop on 'Programme Development Process' was conducted on 25 & 26 of June 2020 at Sherubtse College. The workshop was attended by Programme Leaders of Sherubtse College, Gyalpozhing College of Information and Technology and Jigme Namgyel Engineering College. A total of 25 programme leaders attended the workshop. The workshop was facilitated by the staff of the Department of Academic Affairs.

External Engagement of Academics

The University places high importance on the engagement of staff and faculty with the larger society. It helps to keep the programmes relevant to the needs of the society and also enable our academics to contribute to the communities. Through these engagements, the academics are able to bring real world development and issues in the classroom. To this end, the University encourages academics to engage with various external organisations or decision-making bodies. The figure below shows the engagement of academics during the financial year:

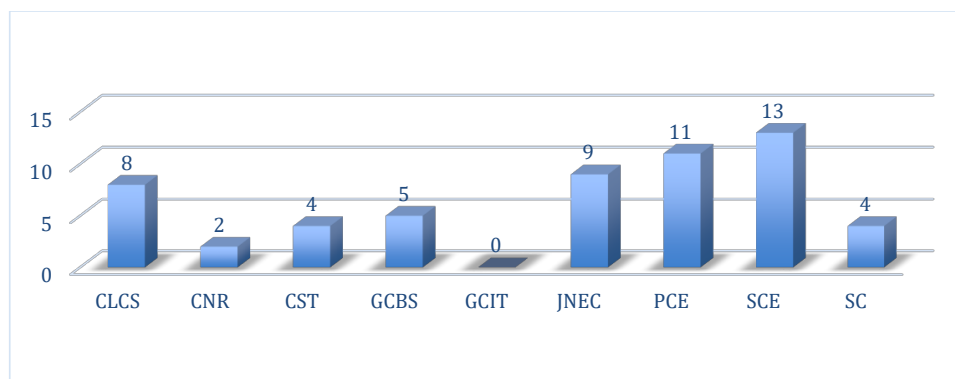


Figure 1: Academics engaged in external decision-making forum

Some of the notable contributions made by the academics during the last one year include the following:

- Academics from the Colleges of Education were engaged with MoE's and REC's activities such as curriculum development, review of curriculum, developing new textbooks, etc.
- Academics from CLCS were engaged in developing Dzongkha textbooks for schools and also as translators with the Department of Culture.
- Academics from CNR were engaged as task force members of Sustainability and Environment Technical Committee and other Committees of the National Environment Commission.
- Academics from CST were involved in National Adaptation Plan, Construction Development Board and Electrical and Civil Engineering technical committees of Bhutan Standards Bureau.
- Academics of GCBS were engaged in developing commerce and economics curriculum and textbooks.
- Academics from Sherubtse College were engaged as members of the multi sectorial task force members for hydropower projects.

Engagement of Local Experts

To expand on the classroom learning, the Colleges invite local expertise in various fields to interact with the academics and students. The local experts visiting the Colleges are eminent people in the government, corporate leaders, and members of parliament, entrepreneurs and researchers. The experts deliver talks and interact with the academics and students. Through this activity, both students and academics are exposed to a wide range of national plans, developments, business opportunities, issues, challenges and future perspectives. The details of local experts engaged by the Colleges are as given in the figure below:

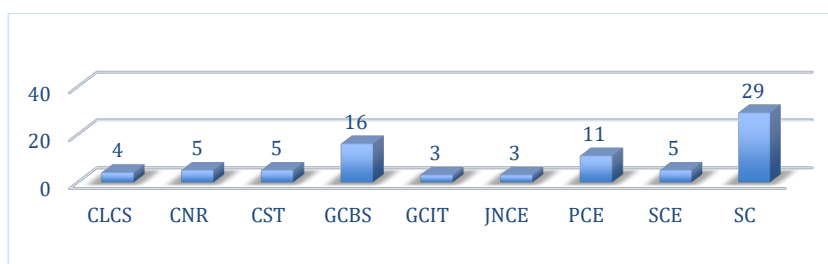


Figure 2: Local experts engaged by the colleges

Some of the examples of local experts engaged by the Colleges include the following:

- At CLCS the local experts delivered talks on GNH, Bhutan History and also conducted training on *Nubzhey*.
- CNR had entrepreneurs from Yiga Chocolate, Bhutan Super Foods and Herbs sharing their experiences. The College also had an expert from BAFRA as resource person.
- CST invited a former MP, representatives from DITT, Loden Foundation and BCMD to interact with the students.
- GCBS invited local experts from DHI, NSB, Loden Foundation, Bay-Yul Excursion, Druk Waste Collection, BOB, a former MP, etc.
- GCIT had experts from Bhutan Media Foundation conducting workshop on media literacy and traditional mask dance experts from nearby Gewog taught mask dance to the students.
- PCE invited teachers, officials from Royal Education Council and Teacher Professional Support Division, MoE, traditional music expert, social needs expert from Changangkha MSS and officials from the Department of Culture.
- At SCE, the former National Council Chair and former RCSC Chair delivered talks to help students gain broader national perspectives.
- Sherubtse College had officials from UNICEF, NPPF, JDWNRH, RBP, Loden Foundation, Yeewong Magazine, Bhutan Trust Fund delivering talks and workshops for the students.

Student Exchange

Student exchange programme is seen as a way to expose students to different culture and teaching-learning practices, which will enrich their experience, enhance their confidence and help them gain wider perspectives. Student exchange programme encompasses both international students' visits to our Colleges and RUB students visiting other countries. Some of the international visits by our students as part of student exchange programme included the following:

- Students from CLCS participated in South Asian University festival, Yasakoi Summer school at Kochi University of Technology, Japan, JNESYS programme, Japan and India-Bhutan Youth festival in India.
- CNR students were on exchange to University of Padova, Italy, Palacký University in Czech Republic, Georg-August University in Germany and University of Nainital, India.
- Five students from CST studied in University Politecnica De Valencis, Spain for five months through the Erasmus mobility project.
- Students from GCBS visited SIMB University, Pune and also took part in the South Asian University festival.
- Students from JNEC were sent to Wroclaw University of Science and Technology and Bialystok University of Technology in Poland.
- PCE students participated in the national events such as the Hon'ble PM of India's visit to Bhutan and listened to his talk, took part in the national coaching course at Thimphu, Indo-Bhutan Youth Summit, National Youth engagement and Health literacy meet during National Youth Day celebration.
- SCE students visited Magadh University and Kurukshetra University in India.
- Students from Sherubtse College visited Waseda and Kyoto University in Japan, attended the South Asian University festival in India, Sharjah International Scout Meet and Indo-Bhutan Youth Summit and took part in a conference at IIT, Guwahati.

Human Resources

The University considers its human resource, particularly the academics, central to the provision of quality education. Therefore, development and management of the human resource is given the highest priority.

Professional development

A total of 22 long-term professional development programmes have been implemented in the FY 2019-2020. It includes two specialised training programmes of nine months duration in the field of special & inclusive education and early childhood care & development offered at Naropa University, USA under Naropa University scholarship programme.

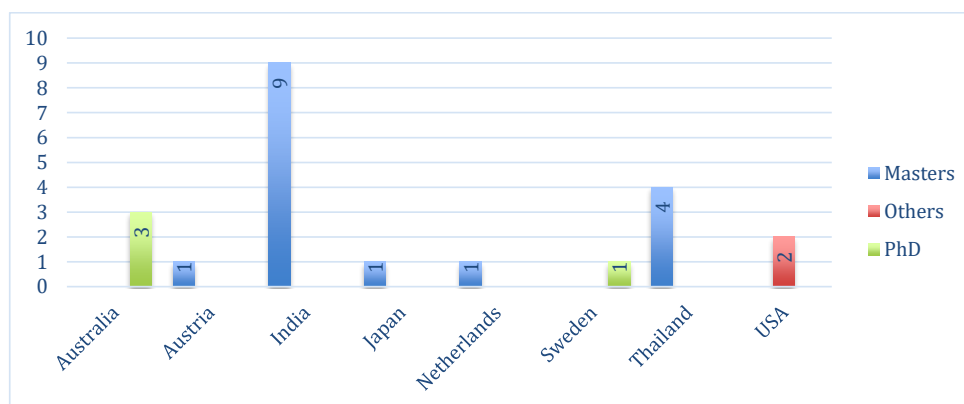


Figure 3: List of countries where academics were sent for Masters and PhDs

The 20 slots implemented for Masters and PhD programmes were secured through various funding support. It includes government scholarship (His Majesty's scholarship, Nehru-Wangchuck, TICA and RGoB funding) and other open scholarships. Some academics have also initiated to secure merit/research scholarships from universities as detailed below:

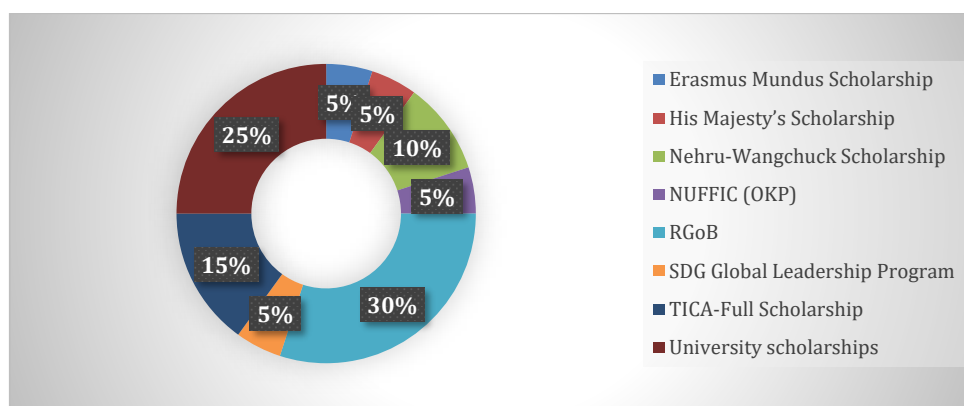


Figure 4: Funding sources for HRD

A total of 10 million budget has been provided for human resource development by the Royal Government of Bhutan. RUB has been using this budget judiciously to benefit as many academics as possible to upgrade them with minimum of Master's Degree qualification.

The challenges posed by the pandemic have led to delays in the selection process in most Indian Universities. Nevertheless, Nu 3.2 million was successfully implemented in the plan period for six Masters programmes implemented in the year, and for five Masters programme for academics who were already in the second year of their studies.

In total, 28 academics have been conferred with Masters Degrees and two academics with PhD in the year towards enhancement of academic qualifications of University academics. In addition, a total of four administrative and technical staff have enhanced their qualifications: two with a Diploma and one with a Bachelor's Degree (awarded by the RUB), and one with a Master's degree from UK.

Currently, there are 49 academics and an administrative & technical staff on studies. Additionally, seven academics on campus are yet to confirm their PhD awards, as given in the table below:

Table 8: Details of staff under long-term professional development programmes

College/ OVC	Academics			Admin & Technical		Grand Total
	Masters	PhD	Total	Bachelors	Total	
CLCS	2		2			2
CNR	4	7	11			11

CST	6	5 + 2*	11 + 2*	1	1	14
GCBS	1	2	3			3
GCIT	7		7			7
JNEC	2		2			2
PCE		3 + 2*	3 + 2*			5
SCE	1	3 + 2*	4 + 2*			6
SC	4	2 + 1*	6 + 1*			7
Grand Total	27	29	49 + 7*	1	1	50 + 7*

*In the table above, * refers to staff who have reported to College but are still to receive their degrees (1 in SC, 2 each in CST, PCE and SCE).*

Human Resource Management

In the year 2019-20, of the total 27 academics recruited for the Colleges, only four had Master's Degree qualification while the rest were with undergraduate degree qualifications.

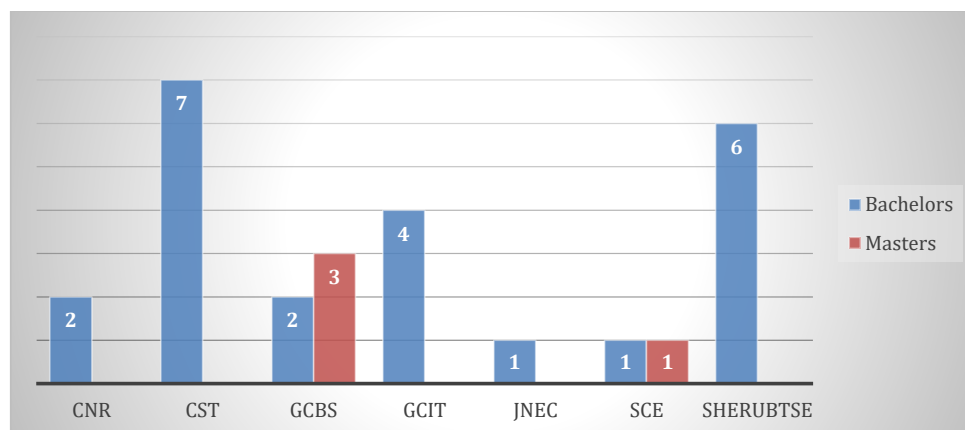


Figure 5: Academic qualification of new recruitment

Over the year, three international academics were recruited on fixed term appointment. In order to professionalise various services, and allow academics to focus in their core areas of work, the University has started hiring administrative staff for various administrative services. This financial year marks the recruitment of 34 administrative and technical staff to support the University in its functions.

RUB also saw the resignation of nine regular academics who had voluntarily resigned from service, of which four were either on study leave or EOL. Additionally, six administrative and technical staff (including three general service staff) have voluntarily resigned from service. Although the early exit may be due to reasons beyond the control of the University, it is a concern that academics in their prime age are resigning

from service, when their experience and qualification could have been utilised effectively. Similarly, two international academics have left the University upon completion of their term.

Staff Strength

RUB has a total of 543 academic staff and 560 administrative and technical staff. The table below indicates that although there are 476 regular academic staff, 427 academics (regular) were on campus shouldering their normal duties while 49 academics are on study leave (including those on mixed mode study). Of the 107 academics with Bachelor's degree qualification, 27 will soon be completing their Master's degree, which leaves 80 academics yet to upgrade to a Master's Degree. Furthermore, it may be noted that the current figure of regular academics with PhDs is likely to increase from 37 to 66 at least in the next 3-4 years as those currently pursuing PhDs (and those still to have their PhD conferred) would have secured PhD awards by then.

Table 9: Qualification of academics under regular mode of employment

COLLEGE	Academics (Regular)					Stock of Academics - Regular (excluding those currently on studies)				
	Diploma	Bachelors	Masters	PhD	Total	Diploma	Bachelors	Masters	PhD	Total
CLCS		11	35	1	47		9	35	1	45
CNR		17	27	10	54		13	20	10	43
CST		17	42	1	60		11	37	1	49
GCBS		3	47		50		2	45		47
GCIT		13	7		20		6	7		13
JNEC	5	21	27		53	5	19	27		51
PCE		7	50	10	67		7	47	10	64
SCE		4	32	10	46		3	29	10	42
SC		14	60	5	79		10	58	5	73
Sub-total	5	107	327	37	476	5	80	305	37	427

Table 10: Qualification of academics under different modes of employment

College /OVC	Academic Staff														TOTAL ACADEMICS	TOTAL ADMIN. STAFF	TOTAL STAFF	
	Academics - Regular					Academics - Fixed Term (Bhutanese)					Total (Bhutanese)	Expatriates (Fixed Term)						
	Diploma	Bachelors	Masters	PhD	Total	Diploma	Bachelors	Masters	PhD	Total		Bachelor	Masters	PhD				Total
CLCS		11	35	1	47		6	4		10	57				0	57	111	
CNR		17	27	10	54	1		1		2	56			1	1	57	112	

CST		17	42	1	60			1		1	61		4	3	7	68	57	125
GCBS		3	47		50			2		2	52		7	8	15	67	69	136
GCIT		13	7		20			1		1	21		5		5	26	39	65
JNEC	5	21	27		53					0	53	1			1	54	69	123
PCE		7	50	10	67					0	67				0	67	41	108
SCE		4	32	10	46					0	46		1		1	47	48	95
SC		14	60	5	79					0	79		9	12	21	100	90	190
OVC					0					0	0				0	0	38	38
Total	5	107	327	37	476	1	6	9	0	16	492	1	26	24	51	543	560	1103

Implementation of Plans and Programmes

With the overall view of enhancing the quality of teaching-learning in realizing RUB's vision of 'an internationally recognised university steeped in GNH values,' the highest priority has been accorded in enhancing the quality of academic programmes and its delivery. All efforts in terms of formulation of strategic plans, policies, standards, infrastructure development, preparation of master plans, academic programmes and student enrollment projections have been strategically determined to ensure quality.

Access

In 2019, the University admitted 3120 students including students in postgraduate programmes. With this, the University had a total of 9809 students. In terms of proportion, student under government scholarship make up 81% and self-funded student 19%. Conscious of the issue facing quality with increase in enrollment rate, RUB does not wish to increase enrollment in undergraduate programmes. Therefore, enrollment rate has not increased in 2019. The tables below provide details of student intake and total capacity during FY2019-20:

Table 11: Intake 2019

College	Actual Intake		Total
	Govt. Scholarship	Self-Financed	
CNR	236	89	325
CLCS	225	55	280
CST	253	43	296
GCBS	394	208	602
GCIT	97	0	97
JNEC	285	52	337
PCE	452	25	477
SCE	162	18	180
SC	380	146	526
Total	2484	636	3120

Table 12: Total Student Numbers

College	Student				
	Government Scholarship		Self-Financed		Total
	Male	Female	Male	Female	
CNR	321	427	105	116	969
CLCS	443	600	24	69	1136

CST	566	187	146	87	986
GCBS	698	478	286	264	1726
GCIT	142	122	0	0	264
JNEC	428	181	117	52	778
PCE	654	812	78	44	1588
SCE	246	303	48	92	689
SC	653	654	146	176	1629
YCC	34	10	0	0	44
Total	4185	3774	950	900	9809

Infrastructure Development in the Colleges

In the 12th FYP, RUB has been allocated with Nu. 1.08 billion worth of construction works. It accounts to 90% of the whole 12th FYP capital funding of the University. Similar to the earlier five-year plans, the fund is provided through the Government of India Project Tied Assistance (GOI-PTA).

The following table provides the details of the construction works in each college and the progress made in 2019-2020 financial year:

Table 13: Details of construction works in the Colleges

College	Construction	Outlay (Nu. In mill.)	Expenditure as of June 2020 (Nu in million)	Physical Progress as on June 2020
CLCS	Construction of staff residence	54.06	8.86	10%
	Construction of football and gallery	10.02	0.00	Drawings and design is being prepared
CNR	Construction of hostel	81.86	8.16 M	2%
	Construction of food processing laboratory	6.54		Drawings and design is being prepared
CST	Construction of hostel	58.69	3.02	0
	Construction of convention hall	30.61	0.00	Drawings and design is being prepared
	Construction of water reservoir	2.00	0.00	98%
GCBS	Construction of hostel	122.53	52.74	8%
	Remodeling of hostel and auditorium	28.00	3.15	12%
GCIT	Construction of IT and library building	431.489	63.33	15%
	Construction of administration building			
	Construction of staff residence			
	Water treatment and sewerage plant			

	Construction of hostel			
JNEC	Construction of Mechanical Lab and Classrooms	61.05	6.85	0%
PCE	Sports laboratory and fitness center	40.00	12.43	25%
SCE	Post graduate block	41.22	13.60	30%
	Staff residence	32.70		
SC	Water treatment and sewerage plant	52.74	1.81	Drawings and design is being prepared
Total		1080.49	156.93	

Construction of Vice Chancellor's Residence

The University was able to secure a 25-decimal plot of land at Debsi-Phaka under Thimphu Dzong from the National Land Commission to construct the Vice Chancellor's residence in 2020. The contract was awarded in early 2020 and currently only the approach road and site clearance works have been completed due to delay caused by the pandemic.



Figure 6: Salang Tendrel for the Construction of VC residence

Staff and Student Norms

The Independent Review Team for 2018-2019 Annual Performance Assessment, recommended the review of the Academic to Student ratio. It was mainly to ensure that it is in sync with the Academic Performance Index particularly with the allocation of workload in the Colleges. Some Colleges have raised that the ratio was much less and did not have adequate number of academics to teach all the modules. Accordingly, the Executive Forum directed the Department of Planning and Resources to discuss the issue with the Deans of academic affairs to review the existing academic-student ratio.

A four-day workshop from 29th August to 1st September 2019 was conducted at CST to discuss and come up with the new ratio. During the workshop, the Deans of Academic Affairs, some Heads of Departments and Pregame Leaders concluded that the staff requirement for arts and humanities could still be maintained at 1:19. However, staff requirement for science and engineering needs to be revised from 1:16 to 1:15 considering the needs based on current practices. The Norms was endorsed by the Academic Board and has been in use to determine staff requirement besides using it as the basis for the preparation of HR Master Plan which is expected to complete during the FY 2020-21.

Space Norms

The University has always emphasised on the need to develop state-of-the-art infrastructure and facilities to create conducive environment for quality teaching learning, research and services. In order to ensure quality infrastructure and facilities, the DPR worked on the University Space Norms, which is a framework with some general parameters and standards that help the University to assess its state of facilities and identify gaps for future development.

The Norms are developed through a comprehensive study of existing practices and aligning with national and international best practices. A group of experts of engineers with representation from Department of Disaster Management and planning staff have initially drafted it through a seven-day workshop in March 2020.

The experts have studied current practices primarily using the reports of RUB space auditing carried out in 2018-19. New drawings have been used to assess the current practices. National standards were referred such as Bhutan Building Code 2018 and Rules for Establishment of Colleges in Bhutan 2017. International best practices were also explored through online resources to learn the standards used by other universities.

After the completion of the draft, the experts visited the facilities at CNR, CLCS, CST and PCE to simulate and apply the provisions of the Norms. It was also shared with all the Colleges for their comments.

Royal University of Bhutan
Space Norms 2020



Department of Planning and Resources
Office of the Vice Chancellor
Royal University of Bhutan
Thimphu, Bhutan

The norms will serve as a framework to help the University assess the current utilisation of infrastructure and facilities, identify exact need for development of new infrastructure and to improve conditions of its infrastructure and facilities. It will also provide a basis for allocation of resources to develop infrastructure and facilities. It is an attempt to ensure uniformity in development of facilities across Colleges.

The Space Norms was endorsed by the University Strategic Response Committee. The Norms will be used as a basis for the review of College Master Plans, identify gaps in current infrastructure, and act as the framework for setting priority during the formulation of 13th FYP.

Strategic Plan

The RUB Strategic Plan 2018-2030 was finalized in 2017, however, as the Colleges and OVC started working on individual Annual Performance Agreements (APA) based on the targets set in the Strategic Plan, it was felt that the targets were unrealistic and ambitious. Due to this issue, DPR was directed to review the targets. The Planning Division visited each College in the months of October to December 2019 and conducted thorough discussion to review the strategies and targets. This also resulted in each College having their own strategic plan, which in essence is the subset of the overall RUB strategic plan.

One of the new developments in terms of strategic planning in this financial year was the development of strategic plan of each department in the OVC focusing more on central initiatives to facilitate the Colleges in implementing their plans and programmes. The Planning Division facilitated the development of strategic plans of each department. The plans were all submitted to the Senior Management Team and University Strategic Response Committee.

Both the review of the targets and development of individual strategic plan of the departments resulted in the participation of almost all the staff of the University in planning process.

Annual Performance Agreement

Beginning financial year 2017-2018, the University adopted performance management system within which it is mandatory for the Colleges and Departments to sign Annual Performance Agreement with the Vice Chancellor. This was put in place mainly to align the goals of the constituent Colleges and individual departments within the OVC to the overall strategic plan of the University, which in turn is aligned, to the national goals. Additionally, this system is also to be used for greater accountability, monitoring and objective assessment of performance of the executives of the University.

For the financial year 2019-2020, the Planning Division successfully coordinated and facilitated the preparation of the APAs for all constituent Colleges and Departments at the OVC. The formal signing of the APAs also took place on time. Following this, the Independent Review Committee (IRT) conducted the mid-review of the APA from 18 - 22 January 2020.

In the three years since APA was instituted, much capacity has been developed. The Colleges and Departments are able to align their annual goals to the strategic plan and

trickle it down to the individual work plans. The indicators and targets are much more refined and realistic indicating understanding of result-based planning. To further strengthen the system, the Department has put in place an APA preparation guideline and a focal person in each College and Department. Additionally, the report of the IRT is discussed in detail in the Executive Forum, which provides an avenue to note the lessons, issues, challenges and achievements resulting in recommendations for constant improvement.

Research

Alongside teaching and learning, research is one of the core areas of the University. Since its inception the University has focused on developing and promoting research culture by building capacity and creating enabling conditions for academics to conduct research. As made evident from the research actions and output conducted, Colleges have started generating research outputs in the form of: thematic research centres established, number of research grant applied and secured, peer reviewed papers published, events and conference conducted and also scholarly outputs that are impacting policy and practices in the country.

Research Policies

A continuous review of policies and development of new ones are some of the ways to create enabling conditions for research in the Colleges. In this financial year, the following were some of the policies updated:

- Research Centre Annual Performance Planning, Monitoring and Reporting template (RC APPMR) was developed to help research centres plan their annual works and synchronise activities among different RCs in the Colleges. The APPMR is also aligned with annual plans of the Colleges.
- The guidelines of Annual University Research Grant were revised to include another category titled *Learning, Teaching and Assessment*. This category is dedicated to proposals of researching innovative practices on learning, teaching and assessment.

Research Centres

The Colleges have put in enormous efforts in establishing research centres in their campuses. It is the bedrock for developing appropriate infrastructure, enhancing research capacity and support, and helping to maintain sustainable financial base for research. The University has instituted 16 research centres in the Colleges as detailed in the table below:

Table 14: List of RUB research centres

College	Centre Name
CST	1.1 Centre for Renewable and Sustainable Energy Development (CRSED)

CNR	1.2 Centre for Disaster Risk Reduction and Community Development Studies (CDRRCSD)
	2.1 Centre for Rural Development Studies (CRDS)
	2.2 Centre for Environment and Climate Research
	2.3 Centre for Sustainable Mountain Agriculture (CSMA)
CLCS	3.1 Bhutan & Himalaya Research Centre (BHRC)
	3.2 Centre for Buddhist Studies (CeBS)
Sherubtse College	4.1 Center for Archaeology and Historical Research
	4.2 Centre for Climate Change and Spatial Information
	4.3 Center for Population and Development
	4.4 Center for Science & Environmental Research
JNEC	5.1 Centre for Appropriate Technology (CAT)
	5.2 Centre for Lighting and Energy Efficiency Studies (LEES)
PCE	6.1 Centre for Educational Research and Development
GCBS	7.1 Centre for Business Research and Entrepreneurship Development (CBRED)
DRER, OVC	8.1 Institute of GHNH Studies (iGNHaS)

Research Output

Within the University, the publication of peer-reviewed journals and paper is considered as high achievement. In addition, the University also strives to align its research work and output to contributing to development needs of the country.

Peer reviewed articles published

During the FY 2019-2020, the academics of RUB managed to publish a total of 122 peer reviewed articles. Figure 2 displays the number of peer reviewed articles published by academics in each College. Some of the papers were published in highly reputed international journals such as in *International Journal of Engineering and Advanced Technology (IJEAT)* and *International Journal of Recent Technology and Engineering (IJRTE)*.

GCIT is a new College with young faculty team, yet, the College has managed to publish a peer reviewed article titled *Ethereum Blockchain Analytics using Machine*

learning ARIMA model in International Journal for Research in Engineering Application and Management.

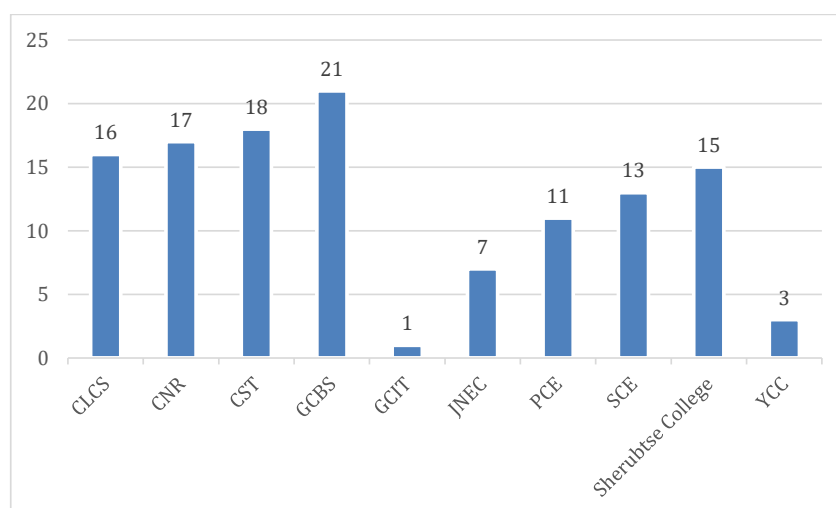


Figure 7: Number of peer reviewed articles published

Journals in RUB

In order to create platform for good quality research works and create a research database that is relevant to the needs of the country, RUB continuously encourage the Colleges to publish their own Journals. As of now, there are eight peer-reviewed journals published regularly. These journals are specific to the subject focus of the Colleges. Table below shows the Journals published during the FY 2019-20.

Table 15: Journals published

Sl. No.	Name of the journal	Vol/Issue No	College
1	འབྲུག་གི་ལམ་སྟོན་གྱི་ཞིབ་འཇུག་རྒྱུ་འབྲེལ་	འོ་ན་རིམ་ལྗང་	CLCS
2	རིག་གཞི་ཞིབ་འཇུག་རྒྱུ་འབྲེལ་ / ཞིབ་འཇུག་ཡིག་དང་ནང་ཚན་ཞིབ་འཇུག་རྒྱུ་འབྲེལ་	འཛིན་རིམ་(Issue 6)	CLCS
3	Bhutan Journal of Business Management	Volume 3, Issue 1	GCBS
4	Rabsel	Volume 1, Number I Volume 21, Issue 1	PCE
5	Journal of Educational Action Research	Volume 1, Number I	PCE
6	Sherubtse Doenme	Volume 13	SC
7	Bhutan Journal of Natural Resources and Development	Volume 7, Issue 1 Volume 7, Issue 2	CNR
8	Bhutan Journal of Research and Development	Vol 8 No 2 Vol 9 No 1	DRER, OVC

Books and Book Chapters published

Writing books and book chapters are one of the success indicators of a researcher. For the last few years, CLCS have been publishing books titled Bhutan Cultural Atlas, which is a UNESCO cultural mapping initiative to preserve the world's intangible and tangible assets. This year, the cultural mapping of Zhemgang Dzongkhag has been published.

GCBS academics assisted Royal Education Council in developing the curriculum of Economics for Class-IX, and Accountancy for Class XII. A team of academics from CST published a book titled An Evaluation of Hydrological Modeling Using SCS-CN Method in Ungauged Om Chhu River Basin of Phuentsholing, Bhutan in Springer Nature Singapore Pvt. Ltd., 2020 (Chaper-7). Following are some of the books/book chapters published during the year:

Table 16: Books and book chapters published

SI	Name of the Books/Chapters	Authors	Publisher	Year	College
1	Bhutan Cultural Atlas: Zhemgang /District	CLCS Lecturers		2019	CLCS
2	མཚན་མཛུགས་ཀྱི་རྒྱུ་རྐྱེན་ལག་ལྟོང་བྱེད་སྤྱོད་ཀྱི་ཐབས་ཤེས་ལོ་རྒྱུ་ལྟོན་མཁོ།	Kelzang Dorji,	BHRC, CLCS	10/4/2020	CLCS
3	དག་ཡིག་ཐོག་གསར་ལམ་སྟོན་(a guide to orthography for beginners: Practical Usage with Examples.	Tenzin Dorji.	CeBS, CLCS	15/5/2020	CLCS
4	Distribution and habitats of Paphiopedilum Pfitzer (Orchidaceae) known to occur in Bhutan.	Gurung, D.B., Gyeltshen, N., Tobgay, K., Dalström, S., Wangdi, J., Ghalley, B.B., Chaida, L., Phuntsho, Gyeltshen, N., Dawa, K., Wangchuk, T., Pradhan, R., Hoijer, T., and Gyeltshen, C.	Journal of Threatened Taxa, 11(9): 14101–14111.	2019	CNR
5	Students' Guide to Corporate Income Tax.	Sonam Wangda and Tenzin Phuntsho	TMT Printing Press. ISBN: 978-99936-33-94-5	Jul-19	GCBS
6	Designing Cost Effective Sustainable Products. Global Summit 2020,	Purnandu Pasu and Gaganjot Kaur	The Institute of Cost Accountants of India. (e-book-chapter, without ISBN)	2020	GCBS

7	Status, Challenges and Prospects of E-Commerce in Bhutan: A case of Bhutanese Tourism Industry, 2019 –	E. Haridev Singh, Madan Gurung, Dawa Drakpa, & Yeshe Tshering		2019	GCBS
8	Economics (Class-IX),	Rinchen Dorji (Co-Author),2019.	Royal Education Council: ISBN :978-99936-0-477-8		GCBS
9	Accountancy for Class XII,	Kinley Wangchuk (Co-Author) & Copy-Editor (2019).	Royal Education Council, ISBN:978-99936-0-464-8		GCBS
10	An Evaluation of Hydrological Modeling Using SCS-CN Method in Ungauged Om Chhu River Basin of Phuentsholing, Bhutan	Dorji L, Sarkar R, Lhachey U, Sharma V, Tshewang, Dikshit A, Kurar R” (2019)	Springer Nature Singapore Pt Ltd. 2020 (Chaper-7)	2019	CST
11	Analysis of key factor affecting the labor productivity at construction sector in Bhutan	Tamang. R, Bdr H, Tamang N.D, Yangden S, Samdrup Y, Tashi K, Dorji L, Shankar B (2019)	ISBN:78-99980-889-0-0, Construction Development Corporation Limited	2019	CST

Intellectual contributions

Some of the notable research works impacting actual policy and practices are:

- CNR discovered a new species of Orchid, *Bulbophyllum trongsaense* and a paper related to this discovery was published in an international journal called Phytotaxa, in March 2020.
- CST developed a web application to support the National COVID-19 Taskforce to bring in Bhutanese residing in the bordering Indian town of Jaigoan. With this application the taskforce was able to identify and categorise all Bhutanese residing in Jaigoan and design services for their needs.
- GCBS developed HR Master Plan 2020-2030 for Construction Development Corporation Limited.
- GCBS also conducted customer satisfaction survey for seven DHI Companies and resulted in a customer satisfaction index, which is being used in the seven Companies.

- GCBS also conducted a housing market assessment for four Thromdes. The report was submitted to MoWHS and is used for review of the National Housing Policy, develop affordable housing strategies and spatial planning policies.
- The University academics have been contributing to many national agencies in reviewing various national policy documents, reports and guidelines, such as:
 - Review of draft Water Strategy Paper led by National Environment Commission;
 - Research review of National Integrity conducted by Anti-Corruption Commission;
 - Review of Climate Change Policy 2019; and
 - Review of Research Strategic Plan of Ministry of Health.

Research Grants

Applying for national and international research grant is one of the important activities for promotion of research in the University. Research Centres in Colleges actively collaborate with international partners and apply for global research fund. In addition, academics continue to explore external research grants with agencies in the country. During the Financial Year 2019-2020, a total of 120 research proposals were submitted by Colleges of which 72 proposals were awarded grant.

As shown in Figure below, CST submitted a total of 21 proposals, one was to *SAARC Energy Centre* for a project titled *Action Plan for Electric Utility/Supply Companies of SAARC Countries to Introduce EV Charging Infrastructure*.

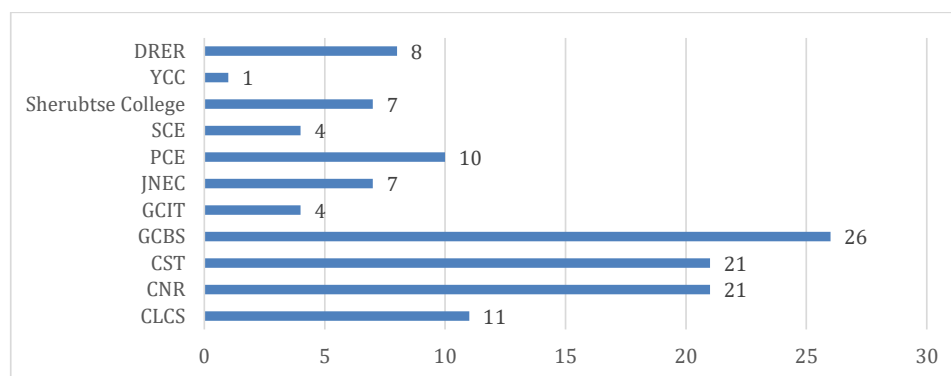


Figure 8: Number of research proposal submitted for external grants

RUB received a total of Nu. 45.85 million as research grant during this financial year from various institutions. CNR received the maximum amount research grant of Nu. 14.69 million from various sources such as NORHED research grants, World Resources Institute's Practice. PCE secured a total of Nu. 3.8 million research grants through Erasmus Plus Project Fund. Sherubtse College also secured a total of Nu.8.28 million from grant agency such as The World Bank, The Rufford Foundation and SANDEE, ICIMOD. Details of research grants secured by the Colleges are given in the table below:

Table 17: List of research grants secured

Sl. No.	College/Dept	Amount of Research Grant Secured (Millions)
1.	CLCS	1.79
2.	CNR	14.69
3.	CST	3.20
4.	GCBS	5.70
5.	GCIT	0.08
6.	JNEC	0.71
7.	PCE	3.80
8.	SCE	8.28
9.	SC	7.60
Total		45.85

Receiving dedicated funding for research from the government is a challenge for the University. However, the Government created a Research Endowment Fund (REF) for which the University is the interim secretariat. The REF has benefited RUB in supporting topical research concerns of the Country. As shown in the table below during this financial year, a total of Nu. 1.6 million was spent to award three projects.

Table 18: List of projects supported by REF

SI	Project Title	Amount Approved
1.	General perception of Bhutanese on the implications of government's initiative in waiving cut-off point for Class X students' progression to Class XI	Nu. 200,000/-
2.	Investigating Student Teachers', Mentors', Supervising Lecturers' and Principals' Perception of School Practicum in Bhutan	Nu. 150,000/-
3.	Assessment of the knowledge management systems of the tertiary education institutions in Bhutan on organisational performance	Nu. 150,000/-
4.	Evaluation of In-situ Thermal Performance of School Buildings in Cold Climate of Bhutan and Possible intervention to improve Thermal Performance	Nu. 300,000/-

Additionally, the University, through its internal arrangements such as apportioning certain percentage of the operating budget for research, creating an Annual University Research Grants (AURG) within DRER has been supporting the growth and development of research.

The table below shows that AURG supported a total of 36 research proposals in various categories focusing mainly to the beginners' faculty researchers and utilized a total of Nu. 2.3 million.

Table 19: AURG Supported Projects for FY 2019-2020

Sl	Category	Amount	Total project awarded
1	Beginning Faculty Researcher	885,500	17
2	Mid-Career Researcher	553,500	10
3	Advance Career Researcher	417,000	5
4	Learning Teaching and Assessment	393,000	4
Total		2,249,000	36

Joint Research Projects

Joint research is a recent phenomenon in the University. Besides the obvious goal of greater connection of the University with the external agencies and individuals, this endeavor serves a greater vision of cross boarder collaboration in creating knowledge that is more universal, sharing of methodological approaches, different perspectives to analysis and interpretations. Joint researches make it easier for academics to access international research fund and join international network of knowledge sharing. For the University, where research is minimal in comparison to other Universities around the world, joint research has benefited in terms of enhancing capacity, exposure to various levels of international research and widening their perspectives.

In the financial year, the following were some of the joint research projects carried out:

Table 20: Joint Research Projects

SI	Joint Research	College
1.	Collaboration with Dr. Raimsara Knapp, University of Cambridge	CLCS
2.	<i>Water scarcity through female lens in Phangyul, Laptakha and Rubesa Gewog</i> in collaboration with Charles Zheng and Aliena Peng	CNR
3.	Accessible education in Smart power system (eAccess) with EU Asia	CST
4.	Explaining women entrepreneurship in Bhutan: An interpretative phenomenological analysis Perception towards drivers of entrepreneurship: a cross cultural study on the University students from Kyrgyzstan, Bhutan and Taiwan	GCBS
5.	Joint research project with University of Zurich	JNEC
6.	<ul style="list-style-type: none"> Embracing self-paced strategy to enhance self-learning with Khangkhu School, MoE; Connecting mathematics concept to real life in the Bhutanese concept with Taju school, MoE; Need Assessment and impact study (project name not given) with University of Birmingham, UK; Situational analyses of GCED in the curriculum with UNESCO 	PCE
7.	<ul style="list-style-type: none"> On learning STEM subjects in Bhutan collaboration with University of Technology Sydney, Australia; Enhancing mental health, counseling and well-being with University of Brussels; RUB-NAP project with ICIMOD, Nepal 	SCE
8.	<ul style="list-style-type: none"> GCRF South Asian Nitrogen Hub (SANH) Erasmus+ mobility for higher education Women in popular fiction: A reading of Gawa Melam by Karma Dolkar a collaboration between Dr. Rajesh Verma with Phuntsho Wangmo Sub –themes: Folklore and cultural studies a collaboration between Sr. S. Chitra and Dechen Delma 	Sherubts e College

Research events organized

A series of conferences and events were organised to provide a platform for the researchers to disseminate their research findings and exchange knowledge. It gives opportunities for researchers to network with policy makers and end users to provide bigger impact of their work. However, the global pandemic affected the last few months of the financial year where some events had to be postponed indefinitely. Figure below shows the number of research events such as conferences and seminars organised in RUB.

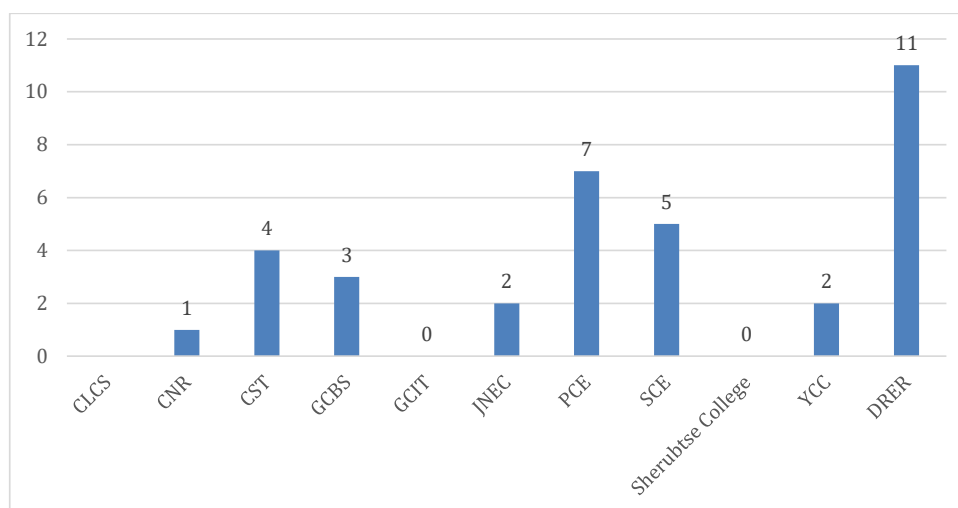


Figure 9: Research events organized

The Department of Research and External Relations, organised seminars in 9 Colleges titled *Seminar on Status of Research; achievement, opportunities and challenges*, where faculty were given opportunities to learn of the progress of research in RUB and also share their views and suggestions for enhancement. Every year DRER organises a Faculty Research Meet for researchers to exchange knowledge and views. The 14th FRM was organised in OVC on the 3 – 4 July 2019. The Annual Conference for the Dean of Research and Industrial Linkages is an important conference featured every year and the 6th ACDRIL was held in SCE from 3 – 5 December 2020.

Similarly, before the COVID-19 pandemic, PCE managed to organise a total of seven events. Some of the notable ones are 'Celebrating ICPD@25 in the Kingdom of the Thunder Dragon' from 22 – 25 October 2019 and 'Positioning to the Roles of Traditional Music in the Education of Children' on 25th September 2019.

JNEC creatively used online space to organise their event titled 'International Webinar-Fighting AI Wealth Concentration with AI Social Business (AI SB)' where more than 100 international/national participants attended the event.

Research capacity development

Since its inception, the University is committed to enhance the research capacity of academics and staff. The table below shows the annual research budget allocated for each College. These amounts are used for various capacity building initiatives:

Table 21: Annual Budget Allocated for Research

SI	College	Annual research budget allocated by College (%)
1.	CLCS	2.55
2.	CNR	2.50
3.	CST	2.50
4.	GCBS	2.633
5.	GCIT	0.50
6.	JNEC	1.06
7.	PCE	2.56
8.	SCE	0.97
9.	SC	1.58
Total		17.59

The Department of Research and External Relations organised a total of nine professional development (PD) programmes for a total of 147 participants. To highlight few:

- To streamline the processes and functions of research activities in RUB, three PD programmes were organised for the recently recruited Research Officers. The training imparted included:
 - *RUB Research Centre activities planning, monitoring and reporting in March 2020;*
 - *Writing research policy brief and designing research poster template from 28 – 30 Jan 2020;*
 - *Guidelines for international staff and student entry to RUB, from 11 -12 June 2020 at GCBS.*
- From 8 – 10 July 2019, DRER organised a PD programme titled Mainstreaming of Landscape Governance to 23 faculty and external members.
- With the funding support from UNICEF, DRER and Sherubtse College jointly conducted a 10-day training for 35 participants which included Members of Parliament and senior civil servant, titled Certificate in Social Policy. The training provided the knowledge and understanding on the value of social policy.

Despite the global pandemic, one of the signs of success and encouragement in research is the number of faculty engaged in research. Figure below shows the percentage of academics engaged in research in each College.

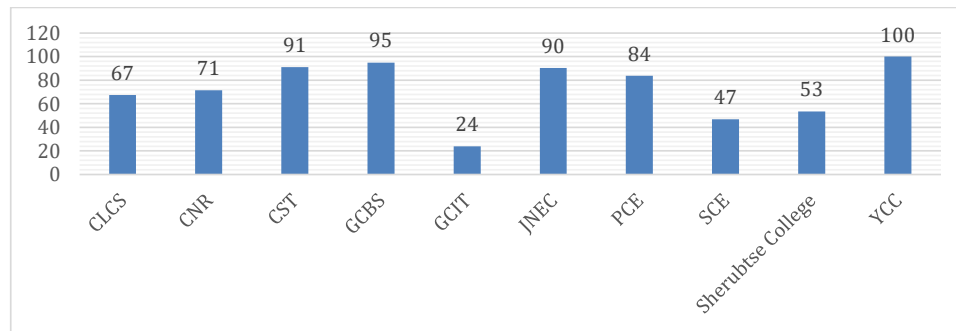


Figure 10: Percentage of academic engaged in research

External Linkages

The objective of making the university teaching learning relevant is met through its linkages with the industry, its immediate community, government and the society at large. Additionally, its international linkages initiatives connect it to a network of Universities, research institution and other relevant organisations around the world helping it to gain global perspective on higher education, cultural immersion for staff and students.

DRER at OVC provides the central coordination support to achieve this objective and within the College it's the Office of the Deans of Research and External Linkages that facilitates relevant activities.

International Linkages

As a relatively young University, international linkages with other Universities, institutions and other relevant organisations are of high priority. The following MoUs were signed in the financial year towards greater international engagement of the University:

Table 22: MoUs Signed

Sl. No.	MoUs signed
1	The French Institute in India
2	Indian Institute of Technology, Kanpur
3	Indian Institute of Technology, Delhi
4	Indian Institute of Technology, Bombay
5	University of Calcutta
6	National Institute of Technology, Silchar
7	Symbiosis International (Deemed University)
8	University of Highlands and Islands, Scotland

International students

RUB has, very recently, started receiving international students owing to various international linkages created with Universities and relevant organisations. Currently, the maximum international students are coming to avail short term study abroad programmes and tailor-made programmes prepared in consultation with the host College. The following Table shows details of international students who visited RUB during the financial year.

Table 23: International students and the types of programmes availed

Study Abroad Category	Number of Students	From
Semester-abroad	NU- 6	From Naropa University,
	UCLL- 1	USA; University College
	MU- 4	Leuven Limburg, Belgium;
	PU 2	Malmo University, Sweden;
	Total - 13	Palacky University, Czech Republic
Short-term (1-6 weeks)	Salzburg -1	University of Salzburg,
	ECU- 40	Austria; Edith Cowan
	UNE- 10	University, Australia;
	Kyoto- 12	University of New England,
	Waseda-12	Australia; Kyoto University,
	Guwahati- 20	Japan; Waseda University,
	Symbiosis- 20	Japan; Guwahati University,
	Singapore- 15	India; Symbiosis Institute of
	Erasmus-10	Business Mtg. India,
Visiting Research	KU- 2	National University of
	UPENN-2	Singapore;
	Total- 140	Erasmus;
Visiting Research	KU- 2	Kyoto University, Japan;
	UPENN-2	University of Pennsylvania,
	Total- 4	USA

Additionally, CNR has five international students enrolled in full-time award bearing programmes through Madanjit Scholarship.

To expand the base for international students under the study abroad programmes, DRER has developed new guidelines and fees to facilitate students from different regions and is currently being reviewed in 2020-2021 for approval from the Executive Forum.

International Staff

RUB had as many as 119 international staff visiting RUB from 24 different countries during the financial year.

Table 24: Nationality of staff visiting RUB

<u>Sl. No</u>		<u>Total</u>
Asia		
1	Burma	1
2	India	14
3	Japan	16
4	Nepal	4
5	Pakistan	1
6	Singapore	4
7	Thailand	2
Europe		
8	Belgium	5
9	Czech Republic	1
10	Finland	3
11	Germany	9
12	Lithuania	2
13	Netherlands	1
14	Norway	1
15	Portugal	1
16	Poland	2
17	Romania	3
18	Sweden	3
19	Spain	2
20	UK	11
21	Slovakia	1
North America		
22	USA	9
23	Canada	1
Australia		
24	Australia	22

Linkages within the Country

Almost all the constituent Colleges have formal relationship with the relevant government Ministries. This helps the Colleges to understand the national plans, research and HR needs.

Over the years, the Colleges are expanding their linkage with corporations and civil society organisations. Following are some of the new linkages established:

Table 25: Linkages Established

College	External Organization
CLCS	Music of Bhutan, Research Center
CST	Loden Foundation
GCBS	BOBL, BDBL, Loden Seed, Chukha Dzngkhag and MoLHR
JNEC	Loden Seed

GNH Inspired Environment

The University recognises the importance of GNH which is expressed in the University's core values. The University strives to put these values into daily practice towards creating an environment where the students are able to see and imbibe these values. The current strategic plan of the University has drawn few strategies for practical implementation of GNH values:

- Develop/Conduct value education workshops/sessions;
- Enhance good governance practices within the university operations characterised by transparency, accountability, efficiency and effectiveness and collaboration among colleges;
- Encourage initiatives for the promotion of culture and traditions;
- Initiate sustainable practices such as reducing paper usage, waste management, rainwater harvesting, solar lighting etc.;
- Provide adequate student support services with service standards/guidelines;
- Develop infrastructure as per the master plan including landscaping;
- Develop turnaround time and SOP and implement accordingly;
- Establish alumni associations or linkages with alumni;
- Set up community and staff welfare services;
- Strengthen Counseling services.

Drawing from the strategies, the University has adopted few key indicators to see how we are progressing in inculcating GNH values. In this financial year, the following were some of the initiatives and achievements:

- More than 77% of the students took part in some form of community services;
- More than 85% of the staff and students are satisfied with the services they receive in the University;

- The Registry department developed the student service management guideline to improve student services;
- All Colleges offered value education activities such as Choe-Say Layrim, mindfulness classes and talk on human values.

Innovation and Entrepreneurship

With the job opportunities declining in both public and corporate sectors, it has become necessary for the education sector to develop a culture of entrepreneurship. Opportunities to develop entrepreneurial mindset and skills among students have become crucial. RUB, therefore, developed a separate theme in its strategic plan to develop necessary capacity and facilities to provide environment conducive for development of entrepreneurial skills and promotion of innovation.



Figure 11: Winter school on entrepreneurship organized by GCBS

All the relevant Colleges will gradually put in place a business incubation centre each. As of now three Colleges have already developed business incubation centres. Some specific and technical Colleges will also put in place various FabLabs to provide students the opportunity to build prototypes. It will also encourage innovation and development of new ideas. The College of Science and Technology has already initiated developing FabLab with the help of JICA Bhutan. CNR is in discussion with the national agencies to develop a Bio FabLab. With the help of Department of Cottage and Small Industries, GCIT has plans to develop a start-up centre with FabLab to promote IT-based innovation and entrepreneurship skills.

In terms of developing conducive environment for entrepreneurship, Colleges are already engaging students by way of organising business idea competitions in collaboration with external agencies such as Loden Foundation and MoLHR. Each College organises at least two events annually. Some Colleges also offer specific modules on entrepreneurship while many others continuing to hire experts from industries and provide two to three days of entrepreneurship development training to interested students.

RUB has been setting up targets with the Colleges to enable graduates establish start-ups to create employment opportunities for themselves and others. Each year few students have initiated start-ups. During this financial year, about four start-ups were launched by graduates within one year from their graduation time.

In the long run, it is hoped that RUB graduates will develop capacity to create self-employment opportunities, promote entrepreneurial mindset in the society and help diversify economy. Such initiative may address the rising youth unemployment situation in the country.

Finance

The following tables present the consolidated financial position of the University as of June 2020.

STATEMENT OF FINANCIAL POSITION AS AT JUNE 30, 2020

Particulars		June 30, 2020	June 30, 2019
ASSETS			
Current Assets			
Cash and Cash Equivalents	4	183,128,174	181,112,410
Financial Assets -Current	5	105,477,657	116,190,472
Inventories	6	11,564,833	2,795,098
Advances/Prepaid Expenses	7	139,982,228	47,251,036
Trade and Other Receivables	8	67,414	67,414
Other Current Assets	9	2,610,381	3,055,733
Total Current Assets		442,830,686	350,472,162
Non-Current Assets			
Property, Plant and Equipment	3	4,693,094,019	4,625,911,537
Intangible Assets	10	5,009,452	5,979,452
Biological Assets	11	488,750	488,750
Investment in Bonds	12	10,000,000	-
Financial Assets-Non Current	13	275,038,062	294,921,323
Investment property		-	-
Total Non-Current Assets		4,983,630,283	4,927,301,062
Total Assets		5,426,460,969	5,277,773,225
LIABILITIES			
Current Liabilities			
Deferred Grant Income-Current	14	376,080,200	368,245,497
Student Security Deposit Payable	15	19,979,606	15,101,831
Employee Benefit Obligations - Current	16	15,148,732	21,256,902
Other Current Liabilities	17	80,991,174	51,001,853
Other Grants	18	31,027,096	27,544,072
Total Current Liabilities		523,226,809	483,150,154
Total Non-Current Liabilities			
Deferred Grant Income Non-current	20	4,240,704,907	4,239,133,685
Long-term employee benefit obligations	21	6,386,945	3,011,938
Total Non-Current Liabilities		4,247,091,852	4,242,145,623
Total Liabilities		4,770,318,661	4,725,295,777
EQUITY			
Retained Earnings	22	656,142,309	552,477,448
Total Equity		656,142,309	552,477,448
Total Liabilities and Equity		5,426,460,969	5,277,773,225

The following table presents the consolidated statement of Income and Expenditure for the Year ended June 30, 2020.

STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED JUNE 30, 2020

Particulars	June 30, 2020	June 30, 2019
INCOME		
Tuition Fees 24	974,656,441	803,774,427
Rental Income 25	34,010,200	31,859,248
Grant Income 26	373,926,967	291,789,629
Interest Income 27	28,668,107	20,983,245
Other income 28	39,458,097	41,662,065
Total Income	1,450,719,812	1,190,068,614
EXPENSES		
Employee Cost 29	712,612,193	542,278,260
General and Administrative Expenses 30	178,152,480	170,044,533
Program Development and review expenses 31	17,608,883	17,463,939
Project Expenses 32	20,654,608	13,829,734
Research and Development Expenses 33	13,090,657	10,832,780
Student Service Expenses 34	180,544,085	121,045,707
Teaching and Learning Expenses 35	28,134,129	31,317,084
Depreciation Expenses 3	158,978,800	139,858,378
Total Expenses	1,309,775,836	1,046,670,414
NET INCOME*	140,943,976	143,398,200

The following table presents the Consolidated Statement of Cash Flow for the Year ended June 30, 2020.

STATEMENT OF CASH FLOW FOR THE YEAR ENDED JUNE 30, 2020

		(Amount in Nu.)	(Amount in Nu.)
Particulars		June 30, 2020	June 30, 2019
CASH FLOWS FROM OPERATING ACTIVITIES			
Cash receipts for tuition (direct income)	33	945,352,029	779,378,088
Other cash receipts (indirect income)	34	70,750,552	47,977,968
Grant and other receipts	35	13,612,029	12,737,212
Employee benefit obligations	36	(29,926,072)	(24,575,519)
Expenses	37	(1,039,211,741)	(785,634,878)
NET CASH FLOW FROM OPERATING ACTIVITIES		(39,423,204)	29,882,870
CASH FLOW FROM INVESTING ACTIVITIES			
Purchase of assets	38	(59,198,243)	(116,673,295)
Investment in fixed deposit	39	15,605,232	(46,404,648)
NET CASH FLOW FROM INVESTING ACTIVITIES		(43,593,011)	(163,077,943)
NET CASH FLOW FROM FINANCING ACTIVITIES	40	85,031,979	85,885,499
NET INCREASE/DECREASE IN CASH & CASH EQUIVALENTS		2,015,764	(47,309,573)
CASH AND CASH EQUIVALENTS, BEGINNING OF THE YEAR	41	179,890,125	227,199,698
CASH AND CASH EQUIVALENTS END OF THE YEAR		181,905,889	179,890,125

The following table presents the Consolidated Statement of Changes in Equity as at June 30, 2020

STATEMENT OF CHANGES IN EQUITY AT JUNE 30, 2020

Description	(Amount in BTN)	
	Retained Earnings	Total Equity
Balance at June 30, 2016	43 82,961,884	82,961,884
Adjustments for IFRS for SMEs 2015 (i)	44 (20,897,177)	(20,897,177)
Profit (Loss) for the year (i)	45 298,565,878	298,565,878
Balance at June 30, 2017	360,630,585	360,630,585
Adjustments for IFRS for SMEs 2015 (ii)	46 (16,126,399)	(16,126,399)
Profit (Loss) for the year (ii)	47 251,297,332	251,297,332
Balance at June 30, 2018	595,801,519	595,801,519
Adjustment	(184,268,048)	-
Profit/loss for the year	140,943,976	140,943,976
Balance at June 30, 2019	552,477,448	552,477,448
Adjustment	(37,279,115)	(37,279,115)
Profit/loss for the year	140,943,976	140,943,976
Balance at June 30, 2020	656,142,309	656,142,309

Response to COVID-19

The year 2020 has seen unprecedented disruption of normal life worldwide due to COVID-19 pandemic. The pandemic has disrupted businesses, created uncertainties, pushed thousands out of jobs, closed down schools, and forced lockdowns. The Education sector has been one of the worst hit sectors. When the first case was detected in Bhutan, schools and Colleges in Paro, Thimphu and Punakha were compelled to close down. For RUB, it marked the start of remote teaching-learning with closure of all the Colleges from 19 March 2020 as per the directives of the Government.

RUB responded to the situation by putting in place RUB Covid-19 Response Plan in March 2020. The Plan laid out all necessary institutional arrangements and strategies to respond to the pandemic to ensure uninterrupted provision of its core services while ensuring safety of staff and students. Some of the key aspects of the response plan included the following:

- Formation of University Strategic Response Committee comprising of all the College Presidents and executives of RUB with the Registry as the Secretariat. The Committee met fortnightly to ensure timely deliberation of emerging developments, issues and RUB's response strategies. The meetings have been conducted online to ensure engagement of all executives on a regular basis;
- Establishment of University-wide Academic Taskforce comprising of all the academic Deans of Colleges led by the Department of Academic Affairs. The Taskforce worked on preparing guidelines for teaching-learning, student attendance, and assessment in the new environment. It is also expected to continuously assess the situation and recommend both overall direction as well as situational decision to provide quality online teaching-learning;
- Assignment of College Academic Committee and Programme Committees to discuss and decide suitable forms of teaching modes and assessment to adapt to the situation without compromising on quality and delivery;
- Formation of the University level ICT Task Force to work closely with the Academic Task Force to provide all necessary technological support. The Taskforce has been constantly reviewing and working on improving the ICT

infrastructure and necessary facilities to continuously improve the existing system of making online delivery effective;

- Formation of a College Level Committee to constantly monitor the situation, implement decisions of the University Strategic Response Committee, and develop and implement Incidental Command System at the colleges. The Committee was also responsible to provide administrative and wellbeing support to the students and staff.

The Response Plan included both short-term and long-term responses. The short-term response plan included immediate support to the students including logistical arrangements as per health protocols to ensure safety and wellbeing of staff and students. The long-term response plan includes development of facilities, putting in place various support systems and developing a culture that ensures safe operations of the University in case the situation remains unabated. It also includes offering space in the College campuses for training of relevant personnel and creation of facilities into quarantine centers if the need arises.

RUB received full support from His Majesty the King and the Government to combat the situation. With such support, RUB has been able to continue most of its activities uninterrupted and achieve most of its annual targets.

On the other hand, the pandemic also opened up opportunities to explore new ways of doing things. Some of the areas include the following:

- Exploring the use of technology to carry out core services by making full use of the Virtual Learning Environment (VLE) that has been in place for the last decade. All academics were given necessary training on the use of the platform and delivered classes online. Like other well-established universities abroad, Colleges explored and pursued creative ways of assessing students remotely such as through open book examination, and in-person practical examinations in a phased manner;
- RUB enabled uninterrupted student progression with adjustments in the academic calendar and engaged students during vacation. Therefore, students have been able to complete their classes without losing much time;

- Ensuring access to online learning environment to students by meeting data expenses using the monthly stipend both for government and self-funded students;
- Instituting a work-from-home system and carrying out the core businesses during lockdown. The same system will be used in case of future lockdown;
- Using online platform for discussion, scholarly engagement and decision making through meetings, conferences and webinars.

In addition, some Colleges have taken advantage of the situation to promote innovation by working on a prototype for sensor-based hand sanitizer dispensing machine at Jigme Namgyal Engineering College. Similarly, CST was involved with the national COVID-19 Taskforce in developing a web application to help the relocation of Bhutanese living across the border.

Covid-19 pandemic has opened up opportunities to transform teaching-learning using ICT. RUB has realized the need to embark upon blended learning system with a clear roadmap ahead. Therefore, discussions engaging external experts from the University of Highlands and Islands have been initiated to develop a concrete policy, roadmap and projects. Some Colleges such as RTC have initiated discussions on the development of a module for on-line teaching-learning.

However, online teaching-learning has posed some challenges that the University will need to address. Some of the challenges include the following:

- The existence of the digital divide among students has been highlighted. There were some students who did not own laptops or devices to access online classes. Few students living in remote parts of the country had difficulty with connectivity and had to walk long distances to receive internet connection. RUB may need to explore schemes to enable access to laptops for students;
- Online learning is seen to be effective to develop self-directed and independent learning skills. Nonetheless, there were students who found it difficult to transition and cope up with online teaching-learning. This could be attributed to a lack of online learning culture which needs to be improved over time.
- ICT infrastructure in the Colleges were found to be inadequate to support online teaching-learning. Existing servers in the Colleges, storage capacity and

connectivity including power backup need to be upgraded. Underdeveloped facilities have affected smooth operation of online teaching-learning. Data security has also emerged as an area of concern which needs to be addressed.

Challenges

- The selection of academics with master's degree qualification continues to be a challenge owing to the small pool and scarcity in some areas. Similarly, attracting competent in-service people with added industry experience is also a challenge. Rethinking on the possibility of raising the profile of academic positions and appropriate policy interventions are imperative to address these issues.
- Having committed funds to support long-term professional development programmes is observed to be crucial for realising the gap in qualification of academics, given that a minimum of master's degree is required to teach students at the undergraduate level. It also includes sending academics for PhD to teach master's degree students and lead research in their field of specialisation.
- Retention of staff, particularly those who are in their prime age, is felt another significant area which require careful scrutiny. While the reasons for early exit of staff may vary from person to person, exit study of their motivation and feedback would be relevant for the University to strive towards improving its human resources.
- It has been evident that postgraduate programmes are crucial for the Country to create a pool of experts in specific subject areas, promotion of research, and development of academic culture. However, due to lack of policy to support postgraduate programmes, RUB has not been able to secure students in its various postgraduate programmes particularly for masters programmes. This will deter RUB from its goal of promoting lifelong learning in the Country. The development of a policy for committed scholarship funding for postgraduate programmes has become necessary.
- Additionally, programmes offered on part-time mode have lost its popularity since it is not recognised by key agencies such as the RCSC and ECB. Looking at the global trends in higher education and more so because of the pandemic, distance learning and online learning have appeared as viable modes of study for higher education. Therefore, enabling policy environment must be created to enhance remote learning to help improve knowledge and skills of the working populace, who otherwise cannot afford the opportunity to take up higher education in traditional mode of learning.

- In terms of research, it is important to recognise the University as a think tank for the Government. The establishment of the National Research Council as envisioned in the Tertiary Education Policy, 2010 is crucial for the University to ensure policy as well as financial support from the Government to engage itself as a think tank. In absence of the central body, it will still be difficult for the country to set research agenda, roadmap and ensure dedicated funding to support RUB in promoting research.
- Internationalisation of the University is gaining momentum with the expressed need to produce globally competent graduates. However, student and staff exchange, creating linkages with Universities abroad are challenging within the current immigration and tourism policies. A differential treatment to the University to encourage academic engagement with its global counterpart is necessary.
- One of the lessons learnt from the pandemic is the lack of robust ICT infrastructure in the University. In keeping with the global trends, the University plans to adopt blended learning in a major way. It will require the University a substantial financial support to put in place all necessary ICT infrastructure, facilities and building capacity. The ICT capital budget which has never featured in our budgeting proposal will now become a crucial component of our future budget planning.