Chapter 2: Performance Audit

HIGHER EDUCATION DEPARTMENT

2 *Outcome of Higher Education in West Bengal*

2.1 Introduction

2.1.1 The background

Higher Education in India suffers from two basic concerns, the first being the low Gross Enrolment Ratio (GER)[15], while the other is the lack of world class higher educational institutions in the country.

The Twelfth Five Year Plan (2012-17) listed out various inadequacies in Indian Higher Education System, namely (i) poor performance of Higher Education Institutions (HEIs) in the area of quality on a relative global scale; (ii) access to Higher Education still being less than the minimum international threshold levels, (iii) distribution of institutions is skewed in terms of regional/ urban/ rural balance; (iv) large concentration of conventional disciplines in public universities; (v) unsatisfactory quality of Higher Education as well as research conducted in most universities; (vi) shortage of well-trained faculty; *etc.* Further, the India Skills Report[16] 2020 has found that more than 50 *per cent* of the students graduating from Indian higher educational institutions are unemployable.

In line with this and towards inclusive and equitable quality education and promoting lifelong learning opportunities for all by 2030 as defined in Sustainable Development Goal 4, Government of India [17] has identified following four main focus areas in Higher Education that need attention:

- **Access:** Expanded availability of Higher Education Institutions
- **Equity:** Narrowing of group inequalities in access to higher education
- **Quality:** Improving teaching and research across all institutions and
- **Governance:** Improvement in educational leadership and governance with the objective of improved learning outcomes at all levels of schooling

2.1.2 The West Bengal scenario

A comparative study based on data available in All India Survey on Higher Education (AISHE) and Reports published by Ministry of Human Resources Development (MHRD) in respect of certain indicators *e.g.* college density, *i.e.*, the number of colleges per lakh eligible population (population in the age-group 18-23 years) and Gross Enrolment Ratio in the years 2010-11 and 2018-19 (*refer* Table 2.1 below) shows that

[15] *Gross Enrolment Ratio in Higher education in India is calculated as a percentage of the total enrolment in higher education, regardless of age to the eligible official population (18-23 years) in a given school year. GER of India at Higher Education level is around 26.3 per cent which is lower as compared to that of countries like China (44 per cent) and Brazil (50 per cent).*

[16] *India Skills Report is a joint initiative of Wheebox (a global talent-assessment company), People Strong and Confederation of Indian Industry (CII) in collaboration with UNDP, AICTE and AIU.*

[17] *Policy documents such as Strategic Framework of Twelfth Five Year Plan (2012-17) and the Output Outcomes Budget 2018-19 of Government of India.*

West Bengal fared poorly amongst all states in India both in terms of college density and GER.

Table 2.1: Comparison of West Bengal with all India average in terms of College density and GER

Year	Total number of universities		Total number of colleges		College Density		GER		Rank of West Bengal amongst all states and UTs in respect of GER
	West Bengal (WB)	*All India*	WB	*All India*	WB	*All India*	WB	*All India*	
2010-11	26	***621***	857	***32,974***	8	***23***	12.4	***19.4***	29
2018-19	45	***993***	1,371	***39,931***	13	***28***	19.3	***26.3***	27
Increase	73%	*60%*	60%	*21%*	62.5%	*22%*	56%	*36%*	

Source: All India Survey on Higher Education Reports

In terms of ranking among all states and Union Territories (UTs) in higher education, West Bengal remained at the lower end of the table, though moving up only marginally from 29 (2010-11) to 27 (2018-19).

Out of the total 45 universities in West Bengal, there are 25 State public Universities, 10 State private Universities, one State Open University seven institutes of national importance and one Central University and one deemed University.

2.1.3 Organizational set-up

The Department of Higher Education (HED) headed by Principal Secretary deals with affairs of Universities and Colleges. The Principal Secretary is assisted by Joint/ Special Secretaries and Director of Public Instruction (DPI). DPI conducts overall work relating to development and expansion of higher education in the State and controls administrative, educational and financial functions, *etc*., of Government and private colleges.

At the University level, The Vice Chancellor (VC) who is the ex-officio Chairman of Court, Executive Council and Faculty Council, is the principal executive and academic officer of the University. The VC is assisted by Registrar, Finance Officer, Controller of Examination, Heads of departments, *etc*. The Court is the highest governing body of the University and is responsible for making Statutes and passing resolutions on the annual accounts and the financial estimates. The Executive Council (EC) is the Chief Executive body responsible to make, amend and cancel Ordinances. The EC also appoints teaching as well as non-teaching staff and defines their duties, emoluments and conditions of services. Faculty Council frames rules relating to the courses of Post-Graduate Studies and division of subjects in regard thereto. University affiliates both Government and private colleges.

2.1.4 Identification of the outcomes parameters for Higher Education

The outcome of any Government activity represents the measure of fulfilment of the expectations vested on it by the stakeholders. In respect of higher education, the Students, the Society and the Government, all have differing expectations. After extensive interactions with various stakeholders in Higher Education, namely, students, experts like policy makers, accreditation agencies,

regulatory bodies, universities, government education departments, *etc.,* it emerged that:

- The students desired **'employability and higher studies'** as the primary outcome of Higher Education;
- The society wanted Higher Education to contribute towards **'creation of new knowledge through research'** and **'diffusion of knowledge through effective teaching/ learning processes'**; and
- The Government on the other hand aimed to **'create a high quality Higher Education system which is easily accessible to all sections of society'**.

These broad outcomes of higher education were linked with various inputs and outputs required in setting-up and managing an effective Higher Education System. It also emerged that a robust and strong governance structure was paramount in achieving these outcomes. Hence, Audit also identified and evaluated various **'parameters required for good governance'**.

2.1.5 Audit Objectives

The objectives of Performance Audit of Outcomes in Higher Education in West Bengal were to assess whether:

1. *The Higher Education system led to increased employability and progress to higher studies for students of higher education institutions;*
2. *The Higher Education system led to betterment of society through effective teaching learning processes and high quality research;*
3. *Equitable Access to Quality Higher Education was ensured for all; and*
4. *Governance and Management of Higher Education system was adequate and effective.*

2.1.6 Audit Criteria

The Performance Audit was conducted against the criteria derived from the following documents:

- Twelfth Five Year Plan;
- Inclusive & Qualitative Expansion of Higher Education-Twelfth Five Year Plan (2012-17);
- Guidelines/ Acts/ Regulations issued by University Grants Commission;
- NITI Aayog's three year action plan;
- Guidelines and Manual issued by National Assessment and Accreditation Council (NAAC);
- Internal Quality Assurance Cell Manual issued by NAAC;
- National Institutional Ranking Framework Manual;
- Rashtriya Uchchatar Shiksha Abhiyan (RUSA) norms;
- Circulars/ orders issued by Department of Higher Education/ DPI, *etc.;*
- Hand books, circulars and guidelines issued by the selected Universities; and
- Acts establishing the selected Universities (Burdwan University and North Bengal University).

2.1.7 Scope of Audit and Audit Methodology

2.1.7.1 Scope of Audit

This performance audit was conducted during November 2019 to January 2020 covering period from 2014-15 to 2018-19 to examine aspects of access, equity, quality and governance of Higher Education in State Universities and in their affiliated colleges. University of Burdwan and University of North Bengal out of 25 State Universities providing education in general streams (Science/ Arts/ Commerce) were selected by simple random sampling method. Thirteen out of 110 affiliated colleges (10 *per cent*) under the jurisdiction of these two Universities were selected by simple random sampling. Further, in order to ensure proportionate audit coverage of affiliated colleges[18], four Government colleges[19] (two out of five Govt. colleges under BU and two out of five Govt. colleges under NBU) and nine Government-aided colleges [20] (five out of 57 Govt. aided colleges under BU and four out of 39 Government aided colleges and four Private colleges under NBU) were selected. Besides this, records of Higher Education Department (HED) and Directorate of Public Instruction (DPI) were also scrutinized.

2.1.7.2 Audit Methodology

An Entry Conference was held (November 2019) with Secretary, Higher Education Department, Government of West Bengal and Vice-Chancellors of the two selected Universities in which audit objectives, scope of audit, audit methodology and audit criteria for this performance audit were discussed.

The aims of this audit were to assess and evaluate the State's performance in achieving outcomes of higher education. Since neither Government of India nor Government of West Bengal has clearly defined such outcomes and criteria for evaluation and measurement of the outcomes, Audit had to develop its own criteria. The criteria were based on policy documents, processes of accrediting and ranking HEIs and inputs from experts of the Higher Education domain and included provisions of 12th Five Year Plan, assessment indicators adopted by National Assessment and Accreditation Council (NAAC), National Institutional Ranking Framework (NIRF)[21], and contributions by experts of education sector and National Institute of Public Finance & Planning.

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[18] *Four Government Colleges– Hooghly Mohsin College and Chandannagar College under the jurisdiction of BU. Acharya Profulla Chandra Roy Govt. College and Darjeeling Govt. College under the jurisdiction of NBU.*
Nine Government aided colleges – Acharya Sukumar Sen Mahavidyalaya, Dr. Gour Mohan Roy College, Guskara Mahavidyalaya, Kabi Joydeb Mahavidyalaya and Tarakeswar Degree College under the jurisdiction of BU and Moynaguri College, Prasannadeb Women's College, Sonada Degree College and Vivekananda College under the jurisdiction of NBU.

[19] *Government colleges were fully funded by the Government with all salary and incidentals being borne by the Government. The fees paid by the students were deposited to government account.*

[20] *Government aided colleges are substantially funded by the Government with the salary of the Government appointed teaching and non-teaching staff being paid by the government as grants. The fees paid by the students were retained by the college itself with a certain percentage being paid into Government accounts.*

[21] *NIRF was approved by MHRD and established on 29 September 2015. It outlines a methodology to rank institutions across the country.*

In order to assess the performance of higher education system in relation to the outcomes, **key outcome indicators *(Appendix 2.1)* as well as input-output indicators *(Appendix 2.2)*** were formulated. These indicators help in evaluating the outcomes as well as the steps taken to achieve these outcomes.

On the basis of these outcome indicators and criteria thereon, Audit developed data Annexures, student survey and audit questionnaires. Further, Audit has developed quantitative proxy criteria, based on the scores obtained by 22 Universities graded A++, A+, A, B++, B+, B, C under the NAAC grading system during 2017-18.

Apart from inspection of universities/ colleges and collection of evidences through copies of relevant documents and discussion papers, student's satisfaction survey was also conducted by obtaining feedback from 1,669 students for evaluation of quality of education.

The Audit observations were discussed with the Pr. Secretary, Higher Education Department and Vice Chancellors of both BU and NBU in an Exit Conference (November 2020), in which all the key officials of the Department as well as both the Universities were present. The Department/ Universities also communicated (December 2020) their responses to the Audit observations. The views of the Universities/ Department have been incorporated at appropriate places.

2.1.8 Acknowledgement

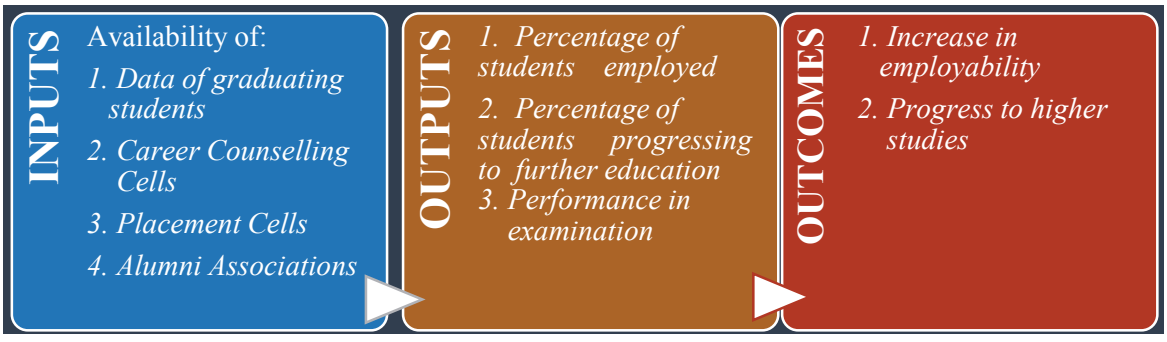
Audit acknowledges the co-operation extended by the Higher Education Department; Directorate of Public Instruction; Vice-Chancellors and concerned officers of University of Burdwan, University of North Bengal and the Principal and staff of the selected colleges in conduct of the Performance Audit.

2.2 Students Progression towards Employment and Higher Studies

This section discusses the most important outcome of higher education that is increasing student progression to employment or higher studies. Various factors and institutional initiatives contribute towards satisfactory achievement of these outcomes. Audit analysis, findings, and recommendations related to this outcome and related contributing factors are discussed in the succeeding paragraphs.

Audit Objective 1: Whether the Higher Education system led to increased employability and progression to higher studies

The relationship between student progression and the various factors, mechanisms and systems contributing towards its achievement can be understood through the following representation:



Increase in employability and progress to higher studies were identified as the most important outcomes that students expect from higher education. Achievement of these outcomes are directly dependent on a number of factors which, besides the quality of education imparted, specifically include availability of career counselling cells, placement cells, alumni associations and proper maintenance of data of graduating students. The existence and effective functioning of such facilitating mechanisms is essential to increase employment opportunities for graduating students.

2.2.1 Students Progression towards Employment and Higher Studies

The International Labour Organisation (ILO) defines Employability as the presence of skills, knowledge and competencies that enhance a worker's ability to secure and retain a job, progress at work and cope with change. According to the ILO, individuals are most employable when they have broad-based education and training, basic and portable high-level skills, including teamwork, problem solving, information and communications technology (ICT) and communication and language skills.

In order to assess these outcomes and evaluate the inputs towards achieving these outcomes, certain indicators have been used which are based on the data relating to the number of graduating students getting job placements, number of students qualifying in competitive employment examinations, number of students progressing to higher studies and number of students graduating successfully. NAAC also considers these factors as key criteria in its process for assessment and accreditation of HEIs.

Audit findings regarding job placements, factors aiding job placements and success rate in competitive exams are discussed below.

2.2.1.1 Placement Cells, Career Counselling Cells, Alumni Associations

Facilitating mechanisms in higher educational institutions, such as Placement Cell, Career Counselling Cell and Alumni Association help the students with appropriate guidance to establish linkages with the world of work and locate career opportunities *vis-à-vis* the realities and job profiles in the context of highly competitive emerging occupational patterns. The gaps in perception about the market demands and individual expectations could be bridged through effective working of such mechanisms[22].

The NAAC University Manual has stipulated for various Student Support and facilitating mechanisms like well-structured and organized guidance and counseling system, placement cell, grievance redressal cell and welfare measures to support students. Such mechanisms are essential for degree holders of general stream higher education programmes which contribute significantly to the employable talent of this country. As per India Skills Report[23] 2020, at an all India level, BSc, BA and B Com undergraduate programmes have provided,

[22] *Guidelines for general development assistance to central, deemed and state universities during XI Plan (2007-2012).*

[23] *India Skills Report is a joint initiative by Wheebox and People Strong in collaboration with Confederation of Indian Industry (CII) along with partners like UNDP, AICTE and AIU. This report is a combination of an assessment of 300,000 candidates from 3,500 educational institutes across 28 States and nine Union Territories of India and more than 150 corporates spread across nine Industry sectors. This is the seventh edition of the Report with annual editions being released since 2014.*

on an average, 37 *per cent*, 32 *per cent* and 32 *per cent* employable graduates respectively during the period 2014-20.

Information furnished by the test-checked two Universities and 13 colleges and scrutiny of available records during audit inspection showed that there was absence of systematic maintenance of records on these facilitating mechanisms and their effectiveness in terms of placement of students (*further discussed in paragraph 2.2.1.2 later in this report*). However, information as furnished by the HEIs disclosed the following:

(a) Placement Cell: In respect of existence and functioning of placement cells the audit of test-checked two universities and 13 government/ government-aided colleges affiliated with the selected universities revealed the following:

(i) In BU and NBU, neither any functional placement cell was in existence, nor were records showing facilitations done by the University for placement of students maintained at the University level.

(ii) Among the test-checked colleges, placement records of students were not maintained except in one college, *i.e.,* Tarakeswar Degree College, where out of 2,426 students graduated in five years, 99 students got placement in five years (Army, Police, Banks, *etc.*).

BU stated (December 2020) that a Placement and Students' Welfare Department had been in existence which extended benefits like railway concession, participation in Youth Parliament competition, *etc.* to the students. It was, however, added that details of the student placement were not maintained by that Department, rather it was maintained by the respective academic departments.

The reply vindicated the fact that functioning of the Placement and Students' Welfare Department was not meaningful in terms of facilitating placement of students as the basic data on facilitating activities for placement of students was not maintained by it and there was substantial scope for improvement in its activities.

Thus, non-constitution of placement cells in test-checked HEIs represented a major shortcoming.

(b) Career counselling cell and Alumni Association: Career counselling cell supports students in the development of soft skills and communication ability to meet the rigors of competitive tests, on-job-training, *etc*. It helps job aspirants in identifying the right job opportunities. Alumni also provide strong support in this endeavor. An active alumni association has the potential to contribute significantly in academic matters, student support as well as mobilization of resources through financial and non-financial means[24].

University Grant Commission (UGC) in its guidelines has also underscored the importance of well-functioning Career Counselling Cells in addressing the diverse socio-economic handicaps and geographic backgrounds of the heterogeneous population of students coming to the Universities *vis-à-vis* equity of access and placement opportunities through availability of appropriate institutional support information.

[24] *NAAC Manual.*

Audit of this aspect in the test-checked two universities and 13 government/ government-aided colleges affiliated with the selected universities revealed the following:

(i) In BU and NBU, there was no career counselling cell apart from activities associated with professional courses.

(ii) Out of 13 colleges, only five test-checked colleges[25] maintained data in respect of students benefitting from guidance for competitive exams and career counselling. It was found that 2,941 students were benefitted from guidance for competitive examinations and career counselling during the period from 2014-19.

(iii) In BU, the alumni association was found to be almost non-functional, having not met even once during the period under review. However, departmental alumni meetings were held in three departments namely Statistics, Bio technology and Zoology once each during the period. The North Bengal University Alumni Association (NBUAA) was founded on October, 2001 voluntarily by a group of alumni. During 2014-19, 32 Alumni meetings were held.

(iv) Alumni associations were formed in nine colleges[26] where a total of 116 meetings were held in the last five years. The alumni contributed financially in two while there was contribution in kind (Providing furniture) in one college.

In reply, BU stated (December 2020) that in some professional course career counselling is a part of the routine activity of the department. It also listed out the number of meetings held by the Industry Institute Partnership Cell (IIPC) during 2014-19 and stated that the University was in the process of framing and gathering entire student database.

The reply may be viewed with the fact that development of soft skills and communication abilities through Career Counseling Cell is to be prioritized across all streams including general ones and not merely for professional courses. Mere holding of IIPC meetings for professional courses do not constitute career counselling as envisaged by the UGC.

The absence of Alumni Association activities in BU were borne from the fact that the last AGM was held in 2012 and the claims of disbursing scholarship were also pertaining to the year 2013-14.

The NBU, however, intimated (December 2020) in reply that it had instructed the checked affiliated colleges under NBU to open such Placement and Career Counselling Cell and to organize job fairs as well as to keep regular records of employment.

Thus, the key area of identification of placement opportunities and providing necessary guidance to students through institutionalizing facilitating mechanisms remained largely neglected as evidenced from non-existence/

[25] *Maynaguri College, A.S. Sen Mahavidyalaya, Prasannadeb Women's College, APC Roy Govt. College and Tarakeswar Degree College.*

[26] *Vivekananda College, Alipurduar- one, Hooghly Mohsin College- Alumni meetings held but number of meetings not mentioned, Darjeeling Govt. College- 12, Maynaguri College- 25, Tarakeswar Degree College- 10, Sonada Degree College- three, Prasannadeb Women's College- seven, APC Roy Govt. College- one and Chandannagar College- 57.*

inadequate functioning of Career Counselling Cells and Alumni Associations coupled with lack of maintenance of key data related to performance of these mechanisms and of the students benefitting from them.

(c) Organization of Job fairs: A job fair is a recruiting event in which employers and recruiters meet with potential employees and where job seekers find more about job openings at potential employers.

Audit scrutiny of two test-checked universities and 13 government/ Government-aided colleges affiliated with the selected universities revealed the following:

In BU, individual Academic Departments like MBA, MBA (HR), Bio-Technology, Microbiology, Physics, Chemistry, M.Tech in Microwave take necessary action and provide financial assistance for organizing placement fairs. BU had held 11 job fairs in which 112 students were placed in jobs. NBU did not organize any job fair during 2014-19.

None of the test-checked colleges organized any job fairs.

Thus, there is ample scope for improvement in the HEIs' efforts in organizing job fair.

(d) Employability enhancement programmes: Employability enhancement programmes for developing traits such as soft skills/ communication skill, spoken English, English writing, *etc*., are crafted in order to bridge the gap between skills possessed by the prospective employees and the abilities that are looked for by the potential employing organization[27]. The significance of such qualities can be gauged from the findings given in India Skills Reports. It states that, while hiring employees, employers preferred positive attitude, adaptability, learning ability and interpersonal skills in a job seeker. Along with the efforts made by Career Counselling cell which supports the students in the development of soft skills and communication ability, these programmes help job aspirants become job-ready.

Audit scrutiny of the test-checked two universities and 13 government/ government-aided colleges affiliated with the selected universities revealed the following:

(i) Three to six courses [28] have been run by the BU focusing on Employability. The number of students benefitted ranged from 155 to 224 during 2014-19.

(ii) In NBU it was seen that only three departments, *i.e.,* Law, Mass Communication and Life Long Learning and Extension offered Value added courses like Intra Departmental Client Counselling Programme, Intra Department Moot Court Competition, Intra Departmental Mock Trial Competition, *etc*. A total of 215 students participated in those programmes during 2014-15 to 2018-19.

[27] *NAAC Manual.*

[28] *Certificate course in Yoga, Communicative English, Cyber crime and security, PG diploma in Guidance and Counselling, PG diploma in Yoga, PG diploma in Special Education (Mental retardation).*

Facilitating mechanisms such as placement cell, career counselling cell, alumni association and employability enhancement programmes are important tools for enhancing employability and employment opportunities of graduating students. It can be concluded from above observations that in most of the test-checked universities and colleges, these mechanisms were either non-existent or functioned inadequately and hence could not have contributed much towards enhancing employability of the students studying in these HEIs. Moreover, owing to lack of maintenance of any employment related data or information by most of the test-checked HEIs, dependable feedback, crucial for future efforts towards enhancing employability of students, was not available.

- ***Recommendation:*** *In order to facilitate graduating students in getting employment or to progress to higher studies, every higher educational institute should constitute a well-functioning placement cell, a career counselling cell and encourage a vibrant alumni association.*

2.2.1.2 Evaluation of Higher Education Institutions through indicators

In this section, the performance of test-checked HEIs in enhancing employability and encouraging progress to higher studies has been assessed by evaluating certain known and acceptable indicators used by accrediting and ranking agencies.

(a) Status of job placement of students: Job placement of students refers to a student getting employment through various efforts made by the institution before the student completes his program. To assess an institution's performance in providing job placements, ***the average percentage of placement of outgoing students during 2014-19*** was used as an indicator ***(Sl. No. 1 of Appendix 2.2)***. This indicator is also one of the key indicators used by NAAC during assessment and accreditation process of HEIs.

During audit, data regarding placement of graduating students was sought from test-checked universities, and colleges. However, out of two universities and 13 government/government-aided colleges[29] affiliated with those universities:

(i) In BU and NBU, Placement records of students were not maintained.

(ii) Placement records of students were not maintained except in one college, *i.e.*, Tarakeswar Degree College under BU where 99 students (0.47 *per cent* of students enrolled) got placement in five years (Army, Police, Banks, *etc*.).

The Department (December 2020), in its response, endorsed the reply of the BU that placement records of students had been maintained appropriately. The reply may be viewed with the fact that the University could not provide placement details to Audit at the time of visit. Evidently, the list of placements given by it in December 2020 was collected only after the matter had been flagged by Audit. Moreover, the list contained substantial number of duplicate entries.

[29] *Colleges under BU: Two Govt. colleges, i.e., Hooghly Mohsin College and Chandannagar College and five Govt. aided colleges, i.e., Acharya Sukumar Sen Mahavidyalaya, Dr. Gour Mohan Roy College, Guskara Mahavidyalaya, Kabi Joydeb Mahavidyalaya and Tarakeswar Degree College.*
Colleges under NBU: Two Govt. colleges, i.e., Acharya Profulla Chandra Roy Govt. College and Darjeeling Govt. College and four Govt. aided colleges, i.e., Moynaguri College, Prasannadeb Women's College, Sonada Degree College and Vivekananda College.

BU stated that the University would advise the colleges to maintain the data in connection with employability enhancement programme at UG level.

Though maintenance of crucial data on placement is important for fulfilling the NAAC accreditation requirements, the same was not being maintained at the test-checked universities. Hence, the average percentage of placement of outgoing students during 2014-19 at the overall university level could not be measured and commented upon. Even at the individual college level, only one out of 13 test-checked affiliated colleges maintained such data.

(b) Progress to higher studies: Apart from employment, progress to higher studies for post-graduation, doctorate and post-doctorate studies, *etc*., is a career option that students aspire to take up. In order to assess how well test-checked universities and colleges did in sending their students for higher studies, ***percentage of students progressing to higher education during 2018-19 (current year)*** was used as an outcome indicator. It is also one of the key indicators used by NAAC during assessment and accreditation process of HEIs (maximum score was awarded to institutions where 20 *per cent* and above students progressed to higher studies).

Enquiries made during audit of the test-checked universities and colleges revealed that none of the two test-checked Universities maintained any records regarding student progression (though both these universities got accreditation of NAAC in 2016). Five test-checked colleges maintained some records of the progression of the students. However, it was neither systematic nor complete and hence, inconclusive. Others did not keep any records of student progression to higher education, *i.e.,* from UG to PG courses, PG to M Phil, PG to PhD, M Phil to PhD, PhD to Post-Doctoral, *etc*.

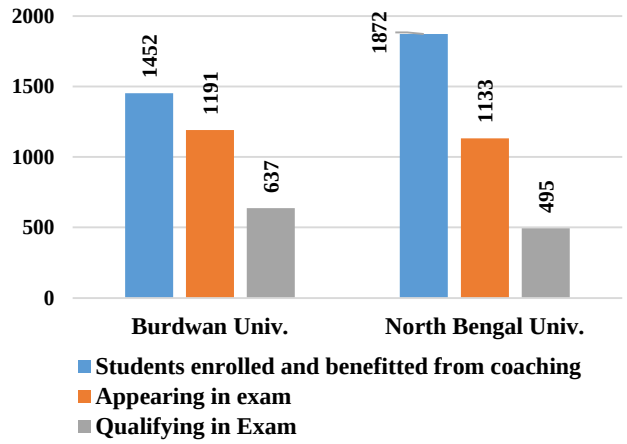
Hence, due to non-maintenance of relevant data, Audit could not assess the performance of the two universities in terms of this indicator. This also indicates failure of Internal Quality Assurance Cell (further details later in this report *vide* paragraph no. 2.5.1.2(ii)) in monitoring the quality parameters/ assessment criteria for NAAC accreditation.

(c) Qualifying in Competitive Examinations: Competitive examinations held at the National and State levels provide immense opportunities for student progression. A number of competitive examinations are held for graduating students to qualify for employment or for progressing to higher studies. Qualification in competitive examinations is an important criteria of NAAC's assessment and accreditation process of higher education institutions.

In order to assess an institution's ability to adequately equip its students for qualifying such examinations, ***Average percentage of students qualifying in State/ National/ International level examinations during 2014-19 (NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/ State government examinations vide Sl. No. 2 of Appendix 2.1)*** was used as an indicator. It was seen that NAAC awarded maximum score to Universities where the success rate was 30 *per cent* and above.

Enquiries made during audit of the test-checked universities and colleges in this respect revealed the following:

Chart 2.1:Comparison of coaching activities for NET/ GATE during last five years (number of students)



- At BU, out of 1,452 students (13 *per cent* of total students) enrolled and benefitted from coaching in five years, 1,191 appeared at the NET/ GATE exams, of whom 637 (44 *per cent* of students enrolled and benefitted) qualified. At NBU, 1,872 students (27 *per cent*) were enrolled for and benefitted from coaching, 1,133 students appeared in the examinations, while 495 (26 *per cent* of students enrolled and benefitted) students passed in NET/ GATE during 2014-15 to 2018-19. The comparative position is shown in **Chart 2.1**. Thus, the success rate in respect of NBU was below 30 *per cent*.
- Separate coaching was not provided for UPSC, SSC, State PSC, CAT examinations. Neither did these Universities maintain any record of students qualifying in Public examinations like UPSC, SSC, State PSC, CAT, *etc*.
- In five out of thirteen test-checked colleges, students were provided guidance for competitive examinations. The percentage of students receiving guidance ranged[30] from 0.03 to 38 and the number qualified in the examinations ranged from 0.06 *per cent* to 2.69 *per cent*[31].

In response, BU claimed (December 2020) that 1,194 candidates have qualified in NET/ GATE during 2014-19. The reply was not acceptable as no records could be produced to Audit by BU in support of the claim, though called for by Audit during cross verification of the records of BU.

Thus, despite having been accredited by NAAC earlier, BU and NBU did not maintain competitive exam related data except for NET, which was essential for evaluating a key parameter of the accreditation process. Further, number of students qualifying in State/ National/ International level examinations during 2014-19 was available for only five out of 13 colleges. Even at the college level, data maintenance was non-existent or incomplete, underscoring the lack of monitoring and control by governing bodies. This also indicates failure of Internal Quality Assurance Cell (IQAC) in monitoring the quality parameters/ assessment criteria for NAAC accreditation in test-checked HEIs.

2.2.1.3 Performance of students in examinations

NAAC in its manual[32] states that the real test of the extent to which teaching learning has been effective in a Higher Education Institution is reflected in the

[30] *Maynaguri College- 3.54 per cent, Tarakeshwar Degree college- 0.03 per cent, Prasannadeb Women's College- 9.11 per cent, APC Roy Govt. College- 24.59 per cent and Acharya Sukumar Sen Mahavidyalaya- 37.9 per cent for 2018-19 only.*

[31] *Maynaguri College- 0.06 per cent, Tarakeswar Degree College- 0.49 per cent, Prasannadeb Women's College- 0.24 per cent, APC Roy Govt. College- 2.69 per cent and Acharya Sukumar Sen Mahavidyalaya- 0.07 per cent for 2018-19 only.*

[32] *Para 2.6 NAAC Manual.*

student performance in the examinations. NAAC and NIRF in their assessment criteria have identified that effectiveness of a higher education institution is reflected through many student centric aspects including student performance in the examinations, average pass percentage of students, percentage of students graduating with higher divisions, *etc*.

Using ***average pass percentage of Students during 2017-18*** as an indicator ***(Sl. No. 2 of Appendix 2.2)***, test-checked HEIs have been evaluated on the basis of examination results. This indicator is one of the key indicators used by NAAC during assessment and accreditation process of HEIs.

The data relating to average pass percentage of all students who appeared in final year examinations in under graduate and post-graduates programs of Science, Arts and Commerce streams during 2017-18 in test-checked two Universities is given in **Table 2.2** below.

Table 2.2: Performance of students in examinations during 2017-18

	Average pass percentage of all students who appeared in final year examinations	
	BU	NBU
Under graduate	50.40%	77.65%
Post graduate	94.78%	89.34%

Source: Information provided by concerned university

None of the 13 test-checked government colleges and government-aided colleges maintained data regarding division-wise result.

During accreditation of universities, NAAC for the indicator ***average pass percentage of Students during 2017-18,*** awarded maximum marks to an institution on having average pass percentage of 90 *per cent* and above. Accordingly, both BU and NBU fell short to achieve this standard.

As per the information provided to Audit with respect to one of the basic functions of any HEI, *i.e.,* conducting exams and maintaining results, it was clear that basic data was also not being maintained properly. Moreover, the fact that almost 50 *per cent* students (under BU *vide* **Table 2.2**) could not graduate points to scope for improvement in the quality of higher education at undergraduate level.

Summary of observations in respect of Increase in employability and progression to higher studies

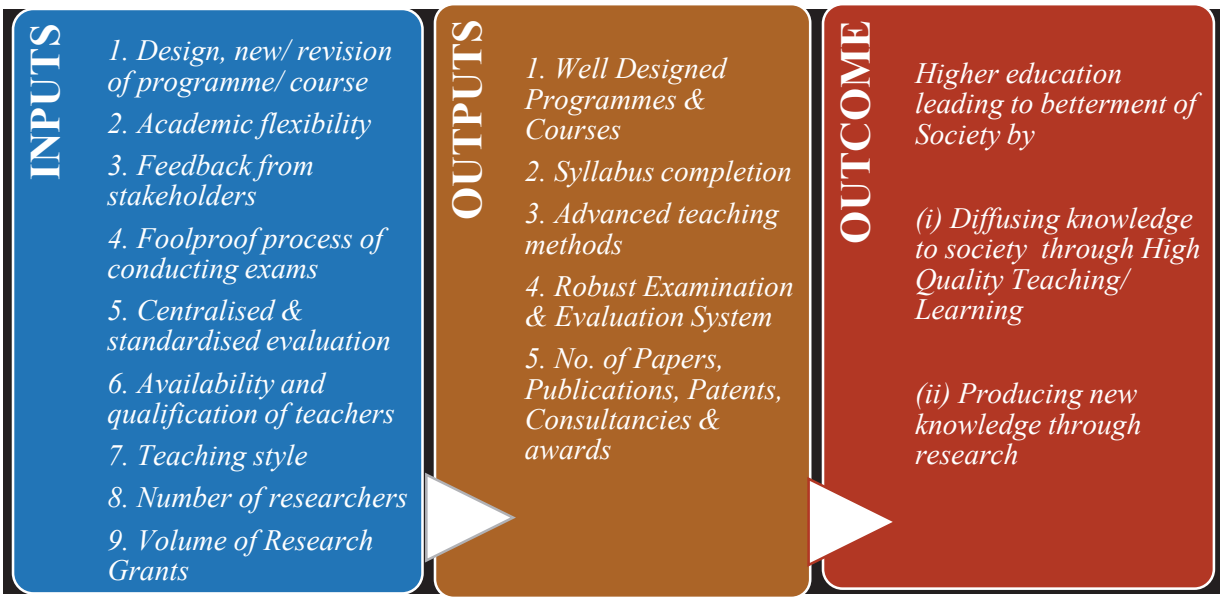
The findings discussed in the foregoing paragraphs shows that the HEIs fell short in terms of the basic functions that were essential to enhance employability of their students and give them opportunities for higher studies. Facilitating mechanisms such as placement cell, career counselling cell, alumni association and employability enhancement programmes, which are important tools for enhancing employability and employment opportunities of graduating students, were either non-existent or functioned inadequately in both the test-checked universities. Hence, they could not have contributed much towards enhancing employability of the students in the job market. Moreover, owing to lack of maintenance of any employment related data or information by most of the test-checked HEIs, dependable feedback, crucial for future efforts towards enhancing employability of students, was not available.

Recommendation: *Considering that employability and student progression to higher studies is the most important outcome for students, every higher education institution should put in place a robust system of collecting and maintaining related data for depicting a real and fair position of the quality of education being imparted in the institution.*

2.3 Betterment of society by high quality teaching-learning and research

Audit objective 2: Whether the Higher Education system led to betterment of society by ensuring high quality teaching-learning and research in higher education institutions

The expectations of Society from Higher Education can be largely met if the system of Higher Education diffuse knowledge to society through High Quality Teaching/ Learning and produce new knowledge through research as shown in the representation below:



2.3.1 Betterment of society by imparting knowledge through effective curriculum and teaching processes

2.3.1.1 Curriculum Design, Development and Implementation

Curricular aspects are the mainstay of any educational institution. They include curriculum design, development, enrichment, planning, and implementation. A university has the mandate to visualize appropriate curricula for particular programmes, revise/ update them periodically, ensure that the outcomes of its programmes are defined by its councils/ bodies. An affiliated college, on the other hand, operationalizes the curriculum within the overall framework provided, in one's own way depending on its potential resource, institutional goals, *etc*., under the overall supervision of the university. An affiliated college depends largely on a university for legitimizing its academic and administrative processes.

(A) Process of curriculum designing and development

Board of Studies (BoS) of a University, after taking appropriate need based inputs from expert groups, recommends the curriculum design of higher

education programme[33] to the Faculty Council, which is approved by the Executive Council.

Further, in spite of NAAC recommendation (2016) that the university's BoS should restructure its curriculum by including job oriented/ facilitating contents with the help of members from stakeholders, BU did not take any feedback from the stakeholders.

In NBU, in some industry linked courses (such as Tea Science and MBA), employers' perspective were taken. In other cases, UGC model curriculum was followed; of which, some regional context was added for each programme in relation to UGC model curricula.

(B) Referring to curricula of leading universities

NAAC Manual (para1.1.1) observed the Curriculum Design and Development is a complex process and provided that the same should be based on appropriate need-based inputs in consultation with expert groups, as well as feedback from stakeholders. Adoption of good practices and to be in tune with the emerging national and global trends is a key indicator in this matter.

Scrutiny of the minutes of BoS did not show any attempt for improvement in the curriculum following leading universities in the same field of study. Further, it was observed that though the syllabi were designed with the approval of Faculty Council, no supporting document in support of feedback from the local/ national/ global stakeholders could be made available to Audit.

In reply, BU stated (December 2020) that there was a full-fledged formal and informal mechanism to obtain inputs from important stakeholders relating to curriculum. In some professional courses informal feedback was also obtained from alumni engaged with industries.

However, during verification of records no evidence of feedback from stakeholders during formulation of curricula could be produced before Audit.

Hence, with regard to the process of curriculum design and development, though the test-checked universities claimed to have followed the laid down procedures, there was insufficient evidence to conclude that crucial feedback from stakeholders, inputs from expert groups and reference to curricula of leading universities were made use of for curriculum improvement.

(C) Revision of syllabus

Twelfth FYP in paragraph 4.3 envisages that the curricula be revised at least once in every three years and the syllabi be made relevant in tune with job market. Further, NAAC in its accreditation process considers regularity and periodicity of syllabus revision as a key criterion. In line with this, in order to assess the efforts made by the test-checked Universities to regularly revise their syllabi the following outcome indicator was evaluated.

Key Outcome Indicator 3: Percentage of programs where syllabus revision was carried out during 2014-19.

[33] *As per NAAC manual programme is a range of learning experiences offered to students in a formal manner over a period of one-to-four years leading to certificates/ diplomas/ degrees, i.e., BA (Economics), B.Sc (Physics).*

The data related to programs where syllabus revision was carried out by BU and NBU during 2014-19 is given in **Table 2.3** below.

Table 2.3: Programs where syllabus revision was carried out

Name of University	Total no. of Programs offered in the University during 2014-19	No. of Programs in which syllabus was revised during 2014-19	Percentage
BU	388	80	21
NBU	111	63	57

Source: Information provided by concerned university

During accreditation of universities, NAAC for the *Key Outcome Indicator 3* awarded maximum score to the institutions where syllabus of 50 *per cent* and above programmes were changed during last five years. Hence, as per NAAC benchmarks, BU was not eligible for scoring maximum marks.

In reply, BU stated (December 2020) that for all programmes CBCS syllabus had been introduced during the period thereby leading to almost 100 *per cent* revision.

The reply is not fully acceptable as the objective of revision of syllabus cannot be met by introducing CBCS.

Hence, with regard to timely revision of syllabus, there were shortcomings in BU.

(D) Courses having focus on Employability/ Entrepreneurship/ Skill development

NAAC in its accreditation and assessment process gives due weightage to employability, entrepreneurship and skill development focus in the design of curriculum by universities. In order to assess the efforts made by test-checked Universities towards increasing focus on employability in curriculum, the following outcome indicator was evaluated.

Key Outcome Indicator 4: Average percentage of courses having focus on Employability/ Entrepreneurship/ Skill development during 2014-19

As per information provided by BU and NBU, the position of courses having focus on employability/ entrepreneurship/ skill development during 2014-19 is given in **Table 2.4** below.

Table 2.4: Courses having focus on employability/ entrepreneurship/ skill development

Name of university	No. of courses in all programs					No. of courses having focus on employability / entrepreneurship/ skill development (percentage)				
	2014-15	2015-16	2016-17	2017-18	2018-19	2014-15	2015-16	2016-17	2017-18	2018-19
BU	429	495	503	552	564	23 (5)	24 (5)	58 (12)	59 (11)	61 (11)
NBU	59	61	62	67	77	35 (59)	33 (54)	37 (60)	39 (58)	46 (60)

Source: Information provided by concerned university

Choice Based Credit System (CBCS) was a mode of learning in higher education which facilitates a student to have some freedom in selecting his/ her own choices, across various disciplines for completing a UG/ PG program. All UG and PG programs, as per UGC, have to implement CBCS. In BU, CBCS was introduced in PG Departments from 2014-17 and in UG, from 2017-18. NBU, however lagged behind and introduced it in PG and UG during 2017-18

and 2018-19 respectively. After introduction of CBCS it was observed that there was no similarity in the way of counting courses in both the Universities. Each of the papers of a subject in BU was designated as a course; thereby increasing the number of courses. CBCS has been discussed later in the report under Academic flexibility {*vide* para 2.3.1.1. (G)}.

It is observed that though there has been increase in number of employability-focused courses, however, in terms of average percentage of such courses *vis-à-vis* all courses, NBU fared much higher as compared to BU. In BU, only nine *per cent* of total courses focused on employability on an average, while in NBU, it was 58 *per cent*.

It was also observed that none of the courses in test-checked 13 colleges were having focus on employability/ entrepreneurship/ skill development during 2014-19.

During accreditation of universities, NAAC for *Key Outcome Indicator 4* awarded maximum score to the institutions where on an average 50 *per cent* and above courses had focus on employability/ entrepreneurship/ skill development during last five years. Hence, as per NAAC benchmarks, BU was not eligible for scoring maximum marks.

The above position may, however, be viewed with lack of coherence among universities in defining the main characteristics of employability focused courses.

Hence, lack of uniformity in parameters for determining employability focus of courses and relatively low number of courses having employability focus were the major shortcomings observed by Audit.

(E) Number of value-added courses and students enrolled

Value added course[34] and activities are those which may not be directly linked with one's discipline of study but contribute to sensitizing students to cross cutting issues such as gender, environment and sustainability, human values and professional ethics.

To assess the efforts made by test-checked Universities in offering value-added courses, '***the number of value-added courses imparting transferable and life skills offered during 2014-19' was used as an indicator (Sl. No. 3 of Appendix 2.2). This indicator is derived from one of the key indicators used by NAAC during assessment and accreditation process of HEIs***.

Also in order to assess the efforts made by test-checked universities in encouraging students to enroll for value added courses, the following outcome indicator was evaluated.

Key Outcome Indicator 5: Average percentage of students enrolled in value added courses during 2014-19

As already discussed earlier in para 2.2.1.1, information provided by test-checked two universities and 13 selected colleges revealed that in case of BU the number of students enrolled in value added courses ranged from 155 in 2014-15 to 224 in 2018-19, while in case of NBU, total 215 students

[34] *Include rural development, acting in theatre and television, spoken English, video blogging, coaching for competitive examination, farm management, etc.*

participated in such programmes during 2014-19. In terms of average percentage, only 0.26 *per cent* of students in BU and 3.07 *per cent* in NBU were enrolled in value added courses. No value added course was introduced by any of the test-checked colleges during the period.

During accreditation of universities, NAAC awarded maximum marks where number of value added courses were 50 and above on an average and 10 *per cent* and above students enrolled in these courses during 2014-19. Hence, as per NAAC benchmarks, none of the two Universities were eligible for scoring any marks.

Thus, barring a few cases, none of the test-checked HEIs made any efforts to introduce value added courses in the curriculum. As a result, students were deprived of the opportunity of enhancing and diversifying their knowledge through value added courses.

(F) Students undertaking field-projects/ internships

Internships are designated activities that carry some credits[35] and involve working in an organization under the guidance of an identified mentor. Field projects that students need to undertake involve conducting surveys outside the college/ university premises and collection of data from designated communities or natural places. Such practical engagement helps the students in applying their knowledge and skills in different settings and inculcating professional dispositions and ethics.

NAAC in its accreditation and assessment process used the key indicator ***'the percentage of students undertaking field projects/ internships during 2018-19' (current year) (Sl. No. 4 of Appendix 2.2)***.

Scrutiny of information provided by two Universities and 13 test-checked government/ government-aided colleges showed that in BU a total of 3061 students took part in field project and 481 students undertook internship in 30 *per cent* courses during the period 2014-19. In NBU, 3627 students took part in field project and internship in 52 *per cent* courses during 2014-19. No field project and internship programme was conducted in any of the test-checked colleges.

(G) Academic flexibility

Academic flexibility provides the students with freedom of horizontal mobility and inter-disciplinary options. There are number of ways through which academic flexibility can be facilitated. It includes offering new and relevant courses, introducing CBCS and semester systems, *etc*.

In order to assess the efforts made by test-checked universities in providing academic flexibility through introduction of new courses in the programmes, the following outcome indicator was evaluated.

Key Outcome Indicator 6: Percentage of new Courses introduced out of the total number of courses across all Programs offered during 2014-19 with the focus of employability.

[35] *A credit system is a systematic way of describing an educational program by attaching credits to its components. UGC defines one credit as one theory period of one hour per week over a semester, one tutorial period of one hour per week over a semester and one practical period of two hour per week over a semester.*

(I) Introduction of new courses

As per information provided by the two test-checked universities, the position of number of new course introduced during 2014-19 and number of courses having focus with employability is detailed in **Table 2.5** below:

Table 2.5: Number of new courses introduced including courses with employability focus

Name of University	Number of Courses offered during 2014-19	New Courses introduced during 2014-19	Total courses with focus on employability
BU	2,543	506	225
NBU	326	58	190

Source: Information provided by concerned university

It can be seen from table above that in BU, 506 new courses had been introduced in 33 Departments during 2014-19 out of a total of 2543. NBU had introduced 58 new courses during 2014-19 out of total of 326 in 28 academic departments.

In reply, the Higher Education Department stated (December 2020) that different universities introduced different curriculum considering their vision and geographical and socioeconomic conditions. For these reasons curricula introduced by NBU were not replicated in BU. Department, however, agreed that there is scope for introducing further courses in Universities.

(II) Programs having Choice Based Credit System

As per UGC, CBCS[36] allows students higher flexibility in choosing inter-disciplinary, intra-disciplinary courses, skill oriented papers and for holistic development.

Further, UGC has prescribed minimum course curriculum for undergraduate courses under CBCS and guidelines for implementing Semester System in higher education institutions. UGC reiterated (August 2018) to implement CBCS in universities and also to revise curriculum.

NAAC, during assessment and accreditation process, used ***'the percentage of programs having CBCS during 2018-19 (current year)'*** as an indicator ***'(Sl. No. 5 of Appendix 2.2)'***.

As per UGC, all UG and PG programs in universities/colleges have to implement CBCS. In BU, CBCS was introduced in PG Departments from 2014-17 and in UG, from 2017-18. NBU, however lagged behind and introduced it in PG and UG during 2017-18 and 2018-19 respectively. The position of number of courses having CBCS in two Universities is given in **Table 2.6** below:

Table 2.6: Courses having CBCS during 2018-19

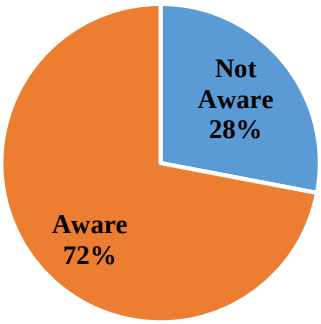
Name of University	No. of Courses offered	No. of Courses in which CBCS or elective course system introduced	Percentage
BU	564	270	48
NBU	77	76	99

Source: Information provided by concerned university

[36] *As per UGC guidelines CBCS provides choice for students to select from the prescribed courses (core, elective or minor or soft skill courses) across various disciplines.*

It was observed from the records of two test-checked universities and colleges in respect of CBCS that in BU, out of the 564 courses, 233 courses (41.5 *per cent*) were intra discipline and 37 (6.5 *per cent*) courses were inter discipline during 2018-19. In NBU, out of 77 courses, 56 courses (72.27 *per cent*) were intra discipline and 20 inter discipline (25.9 *per cent*) during 2018-19.

Chart 2.2: Student Survey Result
"Are you aware of choice based Credit System (CBCS) in your institution?"



Though all the test-checked colleges had introduced CBCS in all the courses during 2018-19, however, it transpired from Students survey that 28 *per cent* of the students surveyed were not aware of that flexibility available to them **(Chart 2.2)**.

Thus, due to limited availability of CBCS in BU, a large number of students were denied the chance of holistic development through additional avenues of learning beyond the core subjects.

(III) Programs having Semester System

A semester system is an academic term that divides an academic year into two parts that provides an opportunity to the students for continuous learning, assessment and feedback. As per UGC guidelines, the semester system accelerates the teaching-learning process and enables vertical and horizontal mobility in learning.

It was observed that both the test-checked universities had introduced semester system for all post graduate (PG) programmes from the year 2014-15. Semester system in the test-checked colleges under BU and NBU had been introduced from 2016-17 and 2017-18 respectively.

The above observations indicate that there remains substantial scope for improvement in revision/ modernization of syllabi, introduction of employability focused curricula and value-added courses, providing exposures among the students through internships, *etc*. The initiatives taken in the university level on many such aspects did not sufficiently percolate to the colleges.

Recommendation: *In order to keep the courses more focused on employability/ entrepreneurship/ skill development, the universities should revise/ design curriculum every three years considering the need of industry, local/ national market.*

2.3.1.2 Effective Teaching Processes

In this section, aspects that are closely connected to advanced teaching methods such as Information and Communication Technology (ICT), Learning Management Systems (LMS), e-resources, faculty related aspects, examinations systems, *etc*., have been discussed.

(A) Use of Information and Communication Technology in teaching

NAAC Manual for Universities, defining the role of ICT, states that technological advancement and innovations in educational transactions have to be undertaken by all HEIs to make a visible impact on academic development as well as administration. Traditional methods of delivering higher education have become less motivating to a large number of students.

NAAC during assessment and accreditation process of HEIs used the following indicator:

Key Outcome Indicator 7: Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources, etc., during 2018-19 (current year)

Records of the two test-checked universities regarding the position of number of teachers using ICT during 2018-19 is given in **Table 2.7** below:

Table 2.7: Teachers using ICT for teaching during 2018-19

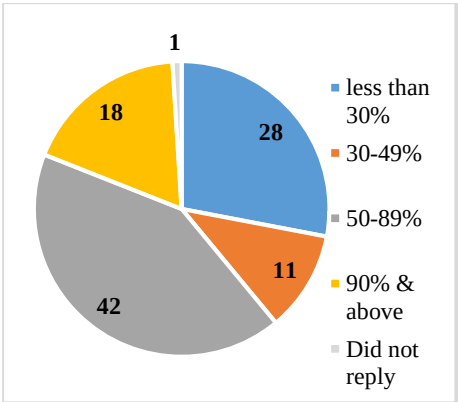
Name of University	Total number of teachers	No. of teachers using ICT in teaching	Percentage
BU	224	188	**84**
NBU	194	175	**90**

Source: Information provided by concerned university.

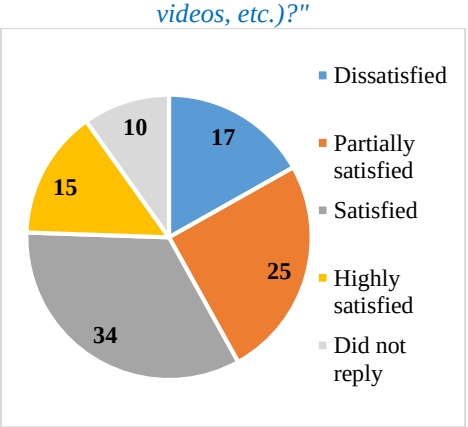
It was observed from the table above that 84 and 90 *per cent* teachers in BU and NBU respectively used ICT for teaching during 2018-19. Student survey results showed inconclusive position in respect of percentage of teachers using ICT, teaching methods did not fully satisfy 42 *per cent* of students surveyed (*vide* **Chart 2.3**).

Chart 2.3: Student Survey Results

"What percentage of teachers use ICT tools such as LCD projector, Multimedia, etc., while teaching?"



"Express your satisfaction on teaching methods/ techniques used in your institution on ICT based teaching (PPT/ videos, etc.)?"



Besides, 42 *per cent* teachers in seven test-checked colleges[37] under BU and 46 *per cent* teachers[38] in six test-checked colleges under NBU used ICT for teaching during 2018-19.

During accreditation of universities, NAAC awarded maximum marks to an institution where on an average 80 *per cent* and above teachers were using ICT in teaching during 2018-19

[37] *Hooghly Mohsin College- 30 per cent, Gushkara Mahavidyalaya- 50.12 per cent, Kabi Joydeb Mahavidyalaya- 50 per cent, Tarakeswar Degree College- 30.68 per cent, Dr. Gour Mohan Roy College- 16.67 per cent, A. S. Sen Mahavidyalaya- 100 per cent and Chandannagar Govt. College- 23.27 per cent.*

[38] *Vivekananda College, Alipurduar- 29.13 per cent , Darjeeling Govt. College- 25 per cent, Maynaguri College- 60 per cent, Sonada Degree College- 100 per cent, Prasannadeb Women's College- 12.19 per cent and APC Roy Govt. College- 100 per cent.*

(current year). Hence, as per NAAC benchmarks, both the universities were eligible for the marks.

(B) Availability and quality of Faculty

Paragraph 7.1.2 of Report on 'Inclusive and Qualitative Expansion of Higher Education' issued under Twelfth FYP stated that shortage of quality faculty coupled with lack of faculty mobility across regions is a major constraint in the development of Indian higher education system.

Though the HED was committed to increase the faculty student ratio, it did not maintain any data regarding the total requirement/ sanctioned strength of teachers. Further, as per the Government order, the number of teachers to be made available in a Government-aided college was based solely on the number of streams available in the college and not on the number of students enrolled. This hampered the goal of reaching the desired ratio as per norms.

To assess the efforts made by HED, WB and by test-checked universities and colleges in ensuring adequate number of teachers, ***the availability of teachers as per the prescribed Student Teacher Ratio (STR) of 20:1 during 2018-19*** was used an indicator ***(Sl. No. 6 of Appendix 2.2)***. This indicator is derived from the Rashtriya Uchchatar Shiksha Abhiyan (RUSA) norms.

The overall ratio of number of students enrolled and number of teachers posted in both BU and NBU was 14:1. **Table 2.8** shows further analysis under UG and PG programmes in Arts, Science and Commerce stream in two test-checked universities and 13 test-checked Government/ government-aided colleges in 2018-19:

Table 2.8: STR in test-checked Universities and colleges during 2018-19

Name of university	Type of data	Total number of students			No. of teachers			Student Teacher Ratio		
		Arts	Commerce	Science	Arts	Commerce	Science	Arts	Commerce	Science
BU	A	1,769	149	717	94	23	96	19:1	6:1	7:1
	B	4,235	769	1,383	111	15	90	38:1	51:1	15:1
	C	14,579	303	554	66	11	13	221:1	27:1	43:1
NBU	A	1,938	132	735	112	12	70	17:1	11:1	11:1
	B	1,734	63	668	80	6	89	22:1	10:1	8:1
	C	15,213	0	378	90	0	22	169:1	0	17:1

Source: Information provided by test-checked institutions

A: All departments of University, B: Test-checked government colleges (Hooghly Mohsin College, Chandannagar Govt. College, Darjeeling Govt. College and APC Roy Govt. College) and C: Test-checked government-aided colleges (Acharya Sukumar Sen Mahavidyalaya, Dr. Gour Mohan Roy College, Guskara Mahavidyalaya, Kabi Joydeb Mahavidyalaya, Tarakeswar Degree College, Moynaguri College, Prasannadeb Women's College, Sonada Degree College and Vivekananda College)

Thus, individual faculties (Arts, Science and Commerce) of both the test-checked universities had wide variations.

The situation is substantially worse in the Arts stream of the test-checked Government-aided colleges under both the Universities.

As regards availability of faculty *vis-à-vis* sanctioned posts it was observed that in Burdwan University, during 2014-19, against average sanctioned strength of 308 teachers per year, the availability was only 218 (71 *per cent*). Similarly, in NBU, during 2014-19, against average sanctioned strength of 268 teachers per year, availability was only 157 (59 *per cent*).

Such shortage of teachers can adversely affect the teaching quality. Shortage at college level assumes further significance given the sub-optimal percentage of passing at UG level in both the universities as already discussed in Paragraph 2.2.1.3 earlier in the report.

(C) Availability of teachers with minimum prescribed qualifications

Paragraph 3.4.4 of UGC (Affiliation of Colleges by University) Regulations, 2009 prescribes that the number of teaching posts, qualification of teaching staff and their recruitment/ promotion procedure as prescribed by UGC and condition of the services shall be in accordance with the Statutes/ Ordinance/ Regulation of the University/ State Government/ UGC.

In this context, UGC prescribes that minimum qualification for the teachers in the various faculties in the colleges affiliated to the Universities should have minimum 55 *per cent* marks in Master's degree and should have cleared National Eligibility Test (NET).

Scrutiny of information provided by test-checked two universities and 13 government/ government-aided colleges revealed the following:

- In the test-checked colleges about 72 *per cent* of teachers (including part time teachers and guest faculty) had the minimum qualification at the time of recruitment. However, Audit noted shortfall in following colleges (all Government-aided), as detailed in **Table 2.9** below:

Table 2.9: Colleges with substantial percentage of teachers (permanent and temporary) not having basic minimum qualification as per UGC norms

Name of the College	Percentage of teachers not having minimum qualification
Vivekananda College, Alipurduar	64.29 *per cent*
Kabi Joydeb Mahavidyalaya	27.27 *per cent*
AS Sen Mahavidyalaya,	73.68 *per cent*
Sonada Degree College	26.32 *per cent*
Prasannadeb Women's College	41.25 *per cent*

Source: Information collected from test-checked colleges

In their reply, both the Universities stated (December 2020) that in the test-checked colleges, all the faculty members appointed against substantive post have prescribed qualifications as per norms.

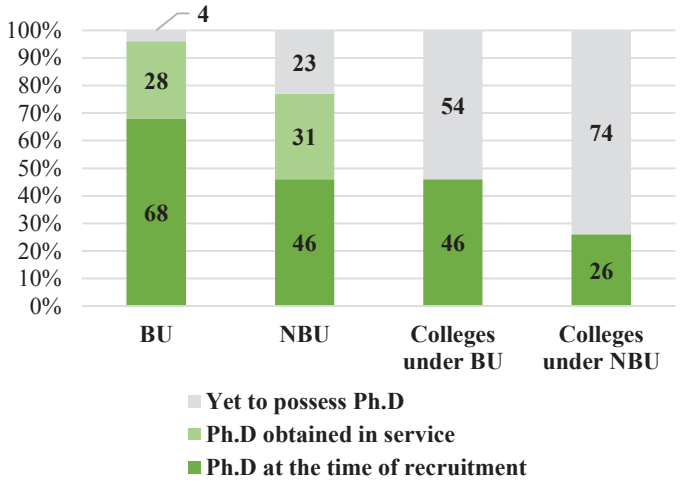
The reply, however, did not address the core issue that many teachers teaching in colleges (especially temporary teachers who were not recruited against substantive posts) are not having minimum qualifications.

In some of the test-checked Government-aided colleges, significant percentage of teachers are not having the basic minimum qualification. This indicates failure in compliance to UGC norms and calls for attention as it can potentially affect the quality of teaching adversely.

(D) Full time teachers with Ph. D degree

To assess the efforts of test-checked HEIs in recruiting full time teachers with Ph.D degrees, ***the average percentage of full time teachers with Ph.D. during 2014-19*** was used as an indicator ***(Sl. No. 7 of Appendix 2.2)***. This indicator is also one of the key indicators used by NAAC during assessment and accreditation process of HEIs.

Chart 2.4: Percentage of Teachers with Ph.D degree



Scrutiny of the information provided by selected two Universities showed that:

In **BU**, out of 213 fulltime teachers during 2018-19, 146 possessed Ph.D degree at the time of recruitment, 59 obtained it during service, while eight do not possess Ph.D degree.

Similarly, in **NBU**, out of 194 fulltime teachers during 2018-19, 90 teachers possessed Ph.D degree at the time of recruitment and 59 acquired it in service while 45 had no Ph.D degree.

In **seven test-checked colleges [39] under BU** about *46 per cent* of teachers had Ph.D degree.

Similarly, **six test-checked colleges[40] under NBU** showed that only 26 *per cent* of teachers had Ph. D degree.

During accreditation of universities, NAAC awarded maximum score to the institution where on an average 70 *per cent* and above teachers were having PhD during 2014-19. Hence, as per NAAC benchmark, both BU and NBU were eligible for scoring maximum marks with respect to this indicator, while none of the test-checked colleges were eligible to score any marks.

(E) Full time teachers who received awards, recognition, fellowships

Since recognition of teachers at State, National and International levels is a marker of their teaching quality, ***the percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognized bodies during 2014-19*** was used as an indicator ***(Sl. No. 8 of Appendix 2.2)*** for assessing quality of teaching staff in HEIs. This indicator is also one of the key indicators used by NAAC during assessment and accreditation process of HEIs.

Complete and consolidated information regarding number of full time teachers who received awards, recognition, fellowships, *etc*., at State, National, International level from Government or recognized bodies was not provided to Audit by BU. However, in reply, BU intimated (December 2020) that 17 faculty members of BU have received awards/ recognition in 2018-19.

As per information furnished by NBU, out of total 194 teachers, 34 received awards and recognitions.

[39] *Hooghly Mohsin College- three per cent, Gushkara Mahavidyalaya- 52.94 per cent, Kabi Joydeb Mahavidyalaya- 25 per cent, Tarakeswar Degree College- 78.26 per cent, Dr. Gour Mohan Roy College- 67.66 per cent, AS Sen Mahavidyalaya- 20 per cent and Chandannagar College- 71.55 per cent.*

[40] *Vivekananda College - 40 per cent, Darjeeling Govt. College- 7.46 per cent, Maynaguri College- 20 per cent, Sonada Degree College- 39.71 per cent, Prasannadeb Women's College- 58.54 per cent and APC Roy Govt. College- 19.55 per cent.*

In the test-checked colleges only eight (1.59 *per cent*) teachers (belonging to seven colleges out of test-checked 13) had received awards/ recognition.

During accreditation of universities, NAAC for this indicator**,** awarded maximum score to the institution where 10 *per cent* and above full time teachers received awards, recognition and fellowship, *etc.*, during 2014-19. Hence, as per NAAC benchmarks, NBU is eligible for scoring full marks. Position of BU could not be ascertained in absence of information.

(F) Teachers provided with financial support to attend conferences/ workshops

To assess the level of facilitation in continuous professional development and exposure to its teachers, ***the average percentage of teachers provided with financial support to attend conferences/ workshops and towards membership fee of professional bodies during 2014-19*** was used as an indicator ***(Sl. No. 9 of Appendix 2.2)***. During accreditation of universities, NAAC awarded maximum marks to an institution where institution was providing financial support to 50 *per cent* and above teachers to attend conferences/ workshops and towards membership fee of professional bodies during last five years.

It was observed that BU provided 111 teachers with financial support to attend National conferences/ workshops and 25 teachers for attending international workshops (total 12 *per cent* of teachers in position on an average) during 2014-19. In NBU, 63 teachers (eight *per cent*) received financial support to attend conferences/ workshops during this period.

Only six teachers in two colleges (three each from AS Sen Mahavidyalaya and Maynaguri College) received financial support for attending workshops.

Hence, as per NAAC benchmark, neither of the test-checked universities were eligible for scoring any mark with respect to this indicator.

Thus, the level of assistance provided by the Universities for facilitating continuous professional development and exposure of teachers through participation in conference/ workshops remained sub-optimal in both the test-checked universities and in most of the test-checked colleges. As these conference/ workshops are likely to keep teachers abreast with latest innovations and advances in their professions, lack of priority in this aspect may adversely impact the contemporariness and relevance of their expertise.

(G) Professional Development Training of faculty

Paragraph 7.1.3 of Report on 'Inclusive and Qualitative Expansion of Higher Education' issued under Twelfth FYP states that faculty development initiatives could include areas like entry level orientation, curriculum development, teaching and learning, research and innovation, engagement with social concerns and leadership development. Customized faculty development programs may also be developed on a large scale. Further, as per Para 2.4 of NAAC Manual, teachers need to take initiative to learn and keep themselves abreast with the latest development, to improve, continuously seek improvement in their work and strive for individual and institutional excellence.

The relevant indicator used by NAAC during assessment and accreditation process of HEIs was ***'the average percentage of teachers attending***

professional development programmes viz., Orientation Programme, Refresher Course, Short Term Course and Faculty Development Programme during 2014-19 (Sl. No. 10 of Appendix 2.2)'.

As per information provided by two test-checked universities, the position of teachers attending professional development programs during 2014-19 is given in **Table 2.10** below:

Table 2.10: Teachers attending professional development programs during 2014-19

Name of university	No. of full time teachers					No. of teachers attending professional development programmes during the year (percentage)					
	2014-15	2015-16	2016-17	2017-18	2018-19	2014-15	2015-16	2016-17	2017-18	2018-19	Average
BU	221	217	230	208	213	72	26	60	15	66	48 (22)
NBU	153	148	139	149	194	35	27	28	37	43	34 (22)

Source: Information provided by concerned university

It is seen from the table above that on an average only 22 *per cent* of the total number of full time teachers in BU and NBU attended professional development programmes during the period 2014-19.

During accreditation of the universities, NAAC for this indicator awarded maximum marks to an institution where on an average 40 *per cent* and above of its teachers attended training programs during 2014-19. Hence, as per NAAC benchmarks, none of the test-checked universities was eligible for scoring the maximum marks.

(H) Robust examination and evaluation system

As per NAAC manual, the effectiveness of examination system of a HEI depends on regularity in conducting examinations, quality of questions, how well it actually tests the programme specific outcomes and course outcomes, *etc.*

NBU had automated the pre-examination processes like online registration for students, uploading online examination forms, allocation of centre to the students as per direction of the university, generation of roll no. and uploading of admit cards, *etc.* It had also automated the post-examination jobs such as data entry of the code-slips of the examinees, preparation of master database of examiners, use of computer based application to track delivery and receipt of used answer books to and from the examiners, arrange online payment of examiners, collection of practical marks online, uploading results on the web, printing of mark sheets and certificates, processing and verification of review forms online, publication of review results online and printing of mark sheets and submitting copies of examination data to the university. However BU had yet to take up automation in a big way except printing of admit cards of the examinees.

(I) Delays in declaration of examination results

Timely declaration of results is extremely important, especially for graduating students as many of their post-study opportunities such as employment, further studies, enrolment in competitive exams, *etc*., are dependent upon their performance in the examinations. Any delay in declaration has the potential to cause great damage to the future of such students.

Scrutiny of information received from the two test-checked universities revealed the following:

- In BU, declaration of results was delayed especially at the UG level. It ranged between 80 – 160 days after the conduct of exams. At the PG level declaration of results were within time.
- In NBU, conduct of examination and declaration of result was as per the scheduled time.

(J) Revaluation process

Revaluation in an examination system refers to the submission of answer books back to the university by students who believe that the result they obtained is not commensurate with their own expectations.

NAAC during assessment and accreditation process of HEIs used the key indicator ***'the average percentage of applications for revaluation leading to change in marks during 2014-19 (Sl. No. 13 of Appendix 2.2)'***. A summary of information on revaluation of answer books in BU and NBU during 2014-19 is given in **Table 2.11** below:

Table 2.11: Position of revaluation of answer books (Number of students)

Category	Period	Burdwan University			North Bengal University*		
		Appeared for examination	Applied for revaluation (percent)	Marks changed after revaluation (percent)	Appeared for examination	Applied for revaluation (percent)	Marks changed after revaluation (percent)
UG	2014-19	2,18,071	45,399 (21)	31,528 (69)	6,99,409	1,72,532 (25)	96,181 (56)
PG	2014-18	7,556	372 (5)	333 (90)	4,269	607 (14)	476 (78)
Total		2,25,627	45,771 (20)	31,861 (70)	7,03,678	1,73,139 (25)	96,657 (56)

Source: Information provided by concerned university

**NBU, UG included student data of all 1st Yr, 2nd Yr and 3rd Yr, number of final Year student are not available separately.*

- It was seen that during 2014-19, a large number of students (20 *per cent* in BU and 25 *per cent* in NBU) were dissatisfied with the evaluation of their examination papers and applied for revaluation of marks. It was a matter of concern that in substantial number of cases (70 *per cent* in BU and 56 *per cent* in NBU) applying for revaluation, marks were changed.

- Students Survey result (*vide* **Charts 2.5** and **2.6**) revealed that 27-30 *per cent* of students expressed their full or partial dissatisfaction in these aspects.

Chart 2.5: Student Survey Result: *"Are you satisfied with the examinations and evaluation process with reference to timely declaration of results in your institution?"*
(Figures in percentage)

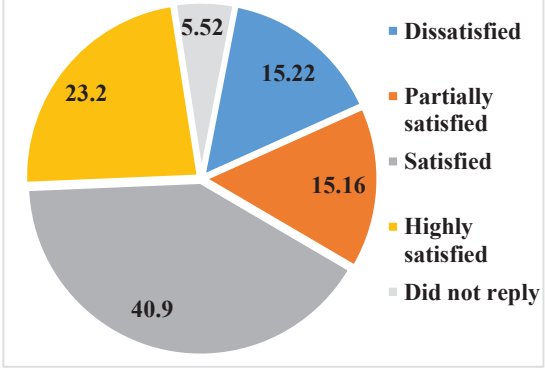
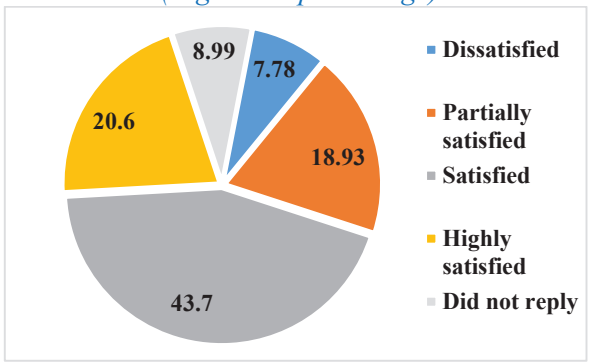


Chart 2.6: Student Survey Result: *"Are you satisfied with the examinations and evaluation process with reference to reassessment / re-evaluation practices in your institution?"*
(Figures in percentage)



Thus, high percentage of changes in the answer books during revaluation, suggests that the evaluation systems of the two test-checked universities need a re-look from view point of operational and monitoring deficiencies.

There was less use of ICT teaching tools by the teachers in the test-checked colleges. Student Teacher Ratio was much more than its prescribed limit of 20:1 in Government-aided colleges in Arts stream during 2018-19. Regarding qualification of faculty, 28 per cent teachers did not possess prescribed qualification in test-checked colleges. Efforts towards professional development of teachers were also insufficient. On an average only 22 per cent teachers attended professional development programmes in Universities. Regarding evaluation of examination answer sheets, marks of 70 per cent of students in BU, 56 per cent of students in NBU who applied for revaluation were changed after revaluation. This indicates operational and monitoring inadequacies in evaluation system in these universities.

Recommendations:

- *In order to ensure quality education the State Government and universities should maintain prescribed Student Faculty Ratio in colleges either by recruiting qualified regular teachers or by rationalizing posting.*
- *The test-checked universities should ensure all the teachers employed in colleges possess the minimum qualification prescribed by regulatory bodies.*
- *The universities should develop centralized evaluation system of answer books so as to avoid operational and monitoring inadequacies.*
- *For improvement and continuous development in the work of teachers for individual and institutional excellence, the State Government and universities should conduct relevant professional development programmes regularly and should ensure that all targeted teachers are provided training in these programmes.*

2.3.2 Betterment of Society by creating new knowledge through effective Research

Quality in research leads to improvement in quality of teaching and learning in the classrooms, thereby benefitting the students, the society and the country. The promotion of research in a huge and diverse country like India will help the nation evolve as a knowledge reservoir in the international arena.

Paragraph 7.1 of Report on 'Inclusive and Qualitative Expansion of Higher Education' issued under Twelfth FYP recommends that research capacities need to be consciously developed in the colleges. Colleges and their teachers should be encouraged and supported in taking up research including generation of innovative teaching-learning material. Further, paragraph 3.1 of NAAC Manual states that HEIs have to be actively engaged in promotion of research by evolving appropriate policies and practices, making adequate resources available and encouraging active involvement of teachers and scholars in research.

The audit findings concerning research in HEIs and results of evaluation of identified indicators related to these areas for the test-checked universities and its affiliated government/ government-aided colleges are given in succeeding paragraphs.

2.3.2.1 Research Inputs

Volume of Research grant/ fund received by Higher Education Institutions:

Paragraphs 7.1 and 7.1.19 (a) of Report on 'Inclusive and Qualitative Expansion of Higher Education' issued under the Twelfth FYP states that adequate funding and initiatives need to be developed for research activities in HEIs. For this purpose, every university should earmark a certain proportion of their annual budget for research and innovation.

In this context, the position of grants received for research activities from government and non-government sources and utilization thereof in test-checked universities during 2014-19 is given in **Table 2.12** below:

Table 2.12: Position of receipt and utilization of grants for research activities during 2014-19 (₹ in lakh)

Name of University	Grants received from Govt. during 2014-19	Grants utilised during 2014-19 (percentage)	No. of research projects undertaken during 2014-19	No of research projects completed
BU	1,279.38	1,218.92 (95.27)	224	155
NBU	2,009.93	1,971.35 (98.08)	178	58

Source: Information provided by concerned university

Scrutiny of information provided by the two selected universities and 13 test-checked colleges revealed the following:

BU, Bardhaman: A total of 224 research projects[41] were undertaken between 2014-19, out of which 155 were completed and 69 were in progress. About

[41] *Some of the research projects were 1) Development of rare earth doped nanocrystalline ceria materials for electronic and optical applications; 2) Generation of middle infrared coherent radiation by cascaded singly resonant optical parametric oscillation technique; 3) Characterization, Dynamics and Management of Gully Erosion in the Lateritic Badlands of Northern Birbhum District, West Bengal; 4) Fluoride geochemistry and influence of high fluoride environmental background on crops and human health in Birbhum district, WB and 5) Preparation of People's Biodiversity Register of Burdwan district, West Bengal.*

95 *per cent* of the grants from Government sources were utilized. There was no receipt of grants from non-government sources.

- **Test-checked colleges under BU:** Only eighteen minor research projects had been conducted in six colleges, *viz*., seven in Chandannagar Govt. College, five in Gushkara Mahavidyalaya, three in Tarakeswar Degree College, one each in Kabi Joydeb Mahavidyalaya, Hooghly Mohsin College and Gour Mohan Roy College during the last five years. None of the teachers in colleges registered any research scholar under them.

NBU, Siliguri: At NBU, out of 178 Research projects undertaken 58 projects were completed and the rest were continuing. About 98 *per cent* of the grants from Government sources were utilized. There was no receipt of grants from non-government sources

- **Test-checked colleges under NBU:** Twenty minor research projects were conducted at Darjeeling Government College. In Moynaguri College, 11 staff are actively engaged in research.

Hence, research activities at college level remained limited to minor research works.

2.3.2.2 Research Outcomes

NAAC suggests that quality research outcome is beneficial for the discipline, society, industry, region and nation. Research outcomes of HEIs include research papers and publications, patents awarded, consultancies given externally, *etc*. Audit assessed these outcomes for the test-checked HEIs, results of which are discussed below.

(i) Patents, Consultancy and Researchers undertaking research: NAAC considers number of patents published/ awarded to an institution, consultancy projects undertaken by faculty, *etc*., during accreditation of the institution and used ***'the number of patents awarded to the institution during 2014-19 (Sl. No. 14 of Appendix 2.2)'*** as an indicator.

The details of number of patents awarded, revenue generated from consultancy, and number of researchers doing research in the test-checked universities during 2014-19 are given in **Table 2.13** below:

Table 2.13: No. of patents awarded/ revenue generated from consultancy in test-checked universities during 2014-19

Name of University	Number of research projects		Number of patents awarded	Number of JRFs, SRFs, Post-Doctoral fellows enrolled	Number of consultancies given by the university	Amount of revenue generated from consultancies in the university (₹ lakh)
	Undertaken	Completed				
BU	224	**155**	**0***	664	1	**0.2**
NBU	178	**58**	**0**	NA	4	**10.07**

Source: Information provided by concerned university

** During 2014-19, two patents were published and two patents were applied for during the period from 2014-15 to 2018-19. However, the above two published patents were not granted by the Controller General of Patents, Design & Trade as of November 2020.*

Scrutiny of records disclosed that research was mainly conducted on the initiative of individual teachers who manage to bring projects from funding bodies like UGC, DST, *etc*. Only 81 faculties (out of 213) at BU were involved in research; whereas at NBU, only 69 (out of 194) faculties were involved.

The total number of students enrolling for Ph.Ds were also low (664 in the last five years in BU) considering that each Professor, Associate Professor and Assistant Professor could guide eight, six and four students for Ph.D. respectively.

During accreditation process, NAAC awarded maximum score to an institution where 20 and above patents were awarded during last five years. Hence, as per NAAC benchmark none of the test-checked universities and government/ government-aided colleges were eligible for any score with respect to this indicator.

Thus, none of the test-checked HEIs were able to produce any tangible outcomes in the form of patents and consultancies from the research they undertook during the period 2014-19.

(ii) Teachers' contributions to Research in HEIs: The strategic framework of Twelfth FYP seeks to bring excellence in higher education by building synergies between teaching and research to promote excellence in both.

Further, the fact that NAAC during accreditation of an institution considers number of research papers per teacher published in UGC notified Journals and number of books and chapters in edited volumes/ books published per teacher, underscores the significance of teachers' contribution to research in enhancing the quality of HEIs.

(A) Number of research papers published per teacher: NAAC during assessment and accreditation process of HEIs used the key indicator ***'the number of research papers per teacher in the Journals notified on UGC website during 2014-19 (Sl. No. 15 of Appendix 2.2)'***.

The details of number of research papers published in UGC notified Journals and number of books and chapters published in edited volumes/ books for BU and NBU is given in **Table 2.14** below:

Table 2.14: Number of research papers published and number of books and chapters in edited volumes/ books published

Name of university	Average number of full time teachers during 2014-19	No. of teachers, who were given seed money for research during 2014-19	Papers published in UGC notified journals during 2014-19		Books & chapters in edited volumes/ published, and papers in national/ international conference proceedings	
			Total number of papers published	Number of paper published per teacher	Total number Books & chapters in edited volumes/ published	Number of Books & chapters in edited volumes/ published per teacher
1	2	3	4	5 (Col 4/ Col 2)	6	7 (Col 6/ Col 2)
BU	**218**	**25**	**2,488**	**11.42**	**645**	**2.96**
NBU	**157**	**80**	**886**	**5.66**	**383**	**2.45**

Source: Information provided by concerned university

Seed money as encouragement to teachers for undertaking research was not provided in any of the test-checked colleges. Even in BU only 11 *per cent* teachers were provided seed money.

- **Test-checked colleges under BU:** A total of 306 research papers (Hooghly Mohsin College-149, Gushkara Mahavidyalaya-74, Kabi Joydeb Mahavidyalaya-10, Tarakeswar Degree College-31 and A.S. Sen Mahavidyalaya-42) were published in UGC notified journals by the

teachers of the test-checked colleges. Another 174 books, chapters were published in edited journals by the teachers of the test-checked colleges (Hooghly Mohsin College-29, Gushkara Mahavidyalaya-74, Tarakeswar Degree College-30 and A.S. Sen Mahavidyalaya-41).

- **Test-checked colleges under NBU:** A total of 64 research papers (Vivekananda College-two, Maynaguri College-22, Sonada Degree College-three and APC Roy Govt. College-37) were published in UGC notified journals by the teachers of the test-checked colleges. Another 103 books, chapters were published in edited journals by the teachers of the test-checked colleges (Vivekananda College-57, Maynaguri College-16, Sonada Degree College-nine and APC Roy Govt. College-21).

During accreditation of universities, NAAC for the indicator awarded maximum score to the institutions where publications per teacher were on an average 10 and more during 2014-19. Hence, as per NAAC benchmarks, BU was eligible for scoring full marks.

Regarding research outcomes in the form of publication of research papers, chapters, books, *etc*., the teachers of test-checked colleges had not made substantial contributions. This calls for further prioritization by the Universities on the aspect of providing encouragement through seed money to its teachers for research works.

(B) Number of teachers awarded international fellowship: NAAC during assessment and accreditation process of HEIs used the key indicator ***'number of teachers awarded international fellowship for advanced studies/ research during 2014-19 (Sl. No. 16 of Appendix 2.2)'***.

Scrutiny of the records showed that one faculty from BU was selected as a Raman Fellow[42] and one faculty from NBU was selected as an International Fellow. Besides, 12 faculties from BU, two teacher from Gushkara Mahavidyalaya under BU and eight teachers from Prasannadeb Women's College under NBU were awarded international fellowship.

During accreditation of universities, NAAC for the indicator prescribed maximum score to universities where on an average 40 *per cent* and more teachers were awarded international fellowship for advanced studies/ research during 2014-19. Hence, as per NAAC benchmarks, none of the Universities were eligible for scoring any marks.

Such small number of teachers from the test-checked HEIs being awarded international fellowships for advanced studies/ research may be viewed with the deficient initiatives of the universities in patronizing research works or in encouraging exposure to international research projects. This may lead to lack of motivation not only among teachers, but also among students under their tutelage.

[42] *"Raman Fellowship for Post-Doctoral Research for Indian Scholars in United States of America: The Fellow will be entitled to fellowship amount of US $ 3000 per month." The minimum period of the fellowship would be six months and maximum period of fellowship would be 12 months. These awards will provide an excellent opportunity to young Indian researchers (permanent faculty), under the age of 40 years to interact with the American academic/ scientific community and get first hand information of the developments taking place at the international level.*

2.3.3 Collaborative and Extension Activities

2.3.3.1 Collaborative Activity: Industry-academia connect

Academia and Industry share a symbiotic relationship. Engagement between universities and industries carry the idea of mutuality and sharing of knowledge and expertise.

Further, as per paragraph 3.7 of NAAC Manual, the HEIs can maintain a closer contact with the work field through collaboration. It helps to keep the academic activities in the HEI in a more realistic perspective and also expand the scope of learning experiences for students. Collaboration can be sought with academic institutions or industry or other agencies of professional and social relevance. The range of activities could include training, student exchange, faculty exchange, research and resource sharing, among others. For making collaborative endeavor impactful, it is necessary that there is a formal agreement or understanding between the institution and other HEIs or agencies for such activities.

To assess encouragement given by the test-checked institutions for industry-academia connect, ***number of functional MoUs executed with institutions of national/ international importance, other Universities, industries, etc., during 2014-19 was used as an indicator (Sl. No. 8 of Appendix 2.1)***.

It was observed in audit that BU signed four MoUs (National level) (two by the Physics dept. and one each by Environmental Science and Geography dept.) (during 2014-15 to 2016-17). No MOU was signed during 2017-18 to 2018-19. NBU signed two national MoUs (by Department of Botany (2018-19) and Chemistry (2018-19)). None of the test-checked colleges signed any MoU with other institutions.

During accreditation of universities, against this indicator NAAC awarded maximum marks to an institution where 30 and above functional MoUs were executed with industries, institutions of national/ international importance, *etc.*, during 2014-19 (last five years) and one mark for executing nine such MoUs. Hence, as per NAAC benchmarks, neither of the test-checked universities were eligible for scoring any marks.

Hence, as none of the test-checked HEIs (apart from four MOUs of BU and two by NBU) collaborated with industries during 2014-19, thereby leaving the objective of deriving benefits like refinement of course curriculum, funding for relevant research work, assistance towards student internships and placements, *etc.*, remaining unachieved. On the other hand, reciprocal opportunities for the industry to take advantage of faculty expertise through consultancy and R&D activities, *etc.*, could not materialise.

2.3.3.2 Extension activities in collaboration with industry, community, etc., and student participation

As per paragraph 3.6 of NAAC Manual, learning activities have a visible element for developing sensitivities towards community issues, gender disparities, social inequity, *etc.*, and in inculcating values and commitment to society. Affiliation and interaction with groups or individuals who have an interest in the activities of the institution and the ability to influence the actions, decisions, policies, practices or goals of the organization leads to mutual benefit

to both. The processes and strategies inherent in such activities sensitize students to the social issues and contexts.

In order to assess the efforts made by test-checked universities in encouraging extension and outreach programs conducted in collaboration with industry, community and NGOs (NCC/ NSS/ Red Cross, *etc*.), the following outcome indicator was evaluated.

Key Outcome Indicator 9: What is the extent to which industry has been consulted or has provided sponsorship and funding, in a collaborative environment?

To assess the encouragement given by test-checked universities to students for participating in extension activities, ***Average percentage of students participating in extension activities GOs, NGOs and Programmes like Swachh Bharat, Aids Awareness, Gender Issues, etc., during 2014-19*** was used as an indicator ***(Sl. No. 17 of Appendix 2.2)***. This indicator is also one of the key indicators used by NAAC during assessment and accreditation process of HEIs.

Scrutiny of records disclosed the following:

NSS Unit of both the test-checked universities conducted some extension activities in neighbourhood community for sensitising students to social issues and holistic development. Both the universities conducted various awareness programmes, orientation programmes, workshops, observance of various special days, *etc.*

- During 2014-19, the BU conducted 66 nos. of Extension and Outreach programmes in which 4303 students participated and NBU conducted 260 nos. Extension and Outreach programmes in which 8619 students participated.
- In addition to the above, in NBU, Centre of Floriculture and Agri-Business Management (COFAM) under Department of Biotechnology, organized 42 extension/ outreach program during 2014-19 in collaboration with State Government, GOI, NGOs, NSS to sensitize and bring awareness among local farmers and youth in organic farming, Swachh Bharat and high-remunerative crops for livelihood generation.
- A total of 8833 students of the test-checked colleges under BU[43] took part in various extension and outreach programmes during 2014-19. Similarly, total of 40634 students of the test-checked colleges under NBU [44]took part in various extension and outreach programmes during 2014-19.
- During accreditation of universities, NAAC for the indicator awarded maximum marks to an institution where on an average 30 *per cent* and above students participated in extension activities during 2014-19 (last five years). Hence, as per NAAC benchmarks, both the Universities (BU 37 *per cent* and NBU 100 *per cent*) were eligible for scoring full marks.

[43] *Gushkara Mahavidyalaya- 4,140, Kabi Joydeb Mahavidyalaya- 446, Tarakeswar Degree College- 3,145, Dr. Gour Mohan Roy College- 50 and A.S. Sen Mahavidyalaya- 1,052.*
[44] *Maynaguri College- 39,690 and Prasannadeb Women's College- 944.*

Summary of observations in respect of Betterment of society by ensuring high quality teaching-learning and research in higher education institutions:

With regard to the process of curriculum design and development, though the test-checked universities claimed to have followed the laid down procedures, there was insufficient evidence to conclude that crucial feedback from stakeholders, inputs from expert groups and reference to curricula of leading universities were made use of for curriculum improvement.

Barring a few cases, none of the test-checked HEIs made any efforts to introduce value added courses in the curriculum, thereby depriving the students of the opportunity of enhancing and diversifying their knowledge.

As regards greater academic flexibility and Choice based Credit System (CBCS), the university level on many such aspects did not sufficiently percolate to the colleges. As a result, a good number of students were denied the chance of holistic development through additional avenues of learning beyond the core subjects.

Shortage of teachers was another area of concern as it can adversely affect the teaching quality. Student Teacher Ratio was, much more than its prescribed limit of 20:1 in Government-aided colleges in Arts stream during 2018-19.

Regarding qualification of faculty, 28 *per cent* teachers did not possess prescribed NET qualification in test-checked colleges. Efforts towards professional development of teachers were also insufficient. On an average only 22 *per cent* teachers attended professional development programmes in Universities.

Lack of research activities at college level was apparent in test-check colleges, as only two out of 13 test-checked colleges were involved in minor research works. None of the test-checked HEIs were able to produce any tangible outcomes in the form of patents and consultancies from the research they undertook during the period 2014-19.

The aspect of facilitating continuous professional development and exposure of teachers through attending conference/ workshops remained largely ignored in the BU and in most of the test-checked colleges. As these conference/ workshops are likely to keep teachers abreast with latest innovations and advances in their professions, lack of priority in this aspect may adversely impact the contemporariness and relevance of their expertise.

Apart from a few MOUs, collaboration with industries during 2014-19 was sub-optimal thereby leaving the objective of deriving benefits like refinement of course curriculum, funding for relevant research work, assistance towards student internships and placements, *etc*., remaining unachieved. On the other hand, reciprocal opportunities for the industry to take advantage of faculty expertise through consultancy and R&D activities, *etc*., could not materialise.

Recommendations:

- *In order to keep the courses more focused on employability/ entrepreneurship/ skill development, the universities should revise/ design curriculum every three years considering the need of industry, local/ national market.*

- *In order to ensure quality education the State Government and universities should maintain prescribed Student Faculty Ratio in colleges either by recruiting qualified regular teachers or by rationalizing posting.*
- *The test-checked universities should ensure all the teachers employed in colleges possess the minimum qualification prescribed by regulatory bodies.*
- *The universities should develop centralized evaluation system of answer books so as to avoid operational and monitoring inadequacies.*
- *For improvement and continuous development in the work of teachers for individual and institutional excellence, the State Government and universities should conduct relevant professional development programmes regularly and should ensure that all targeted teachers are provided training in these programmes.*

2.4 Access and Equity in Higher Education

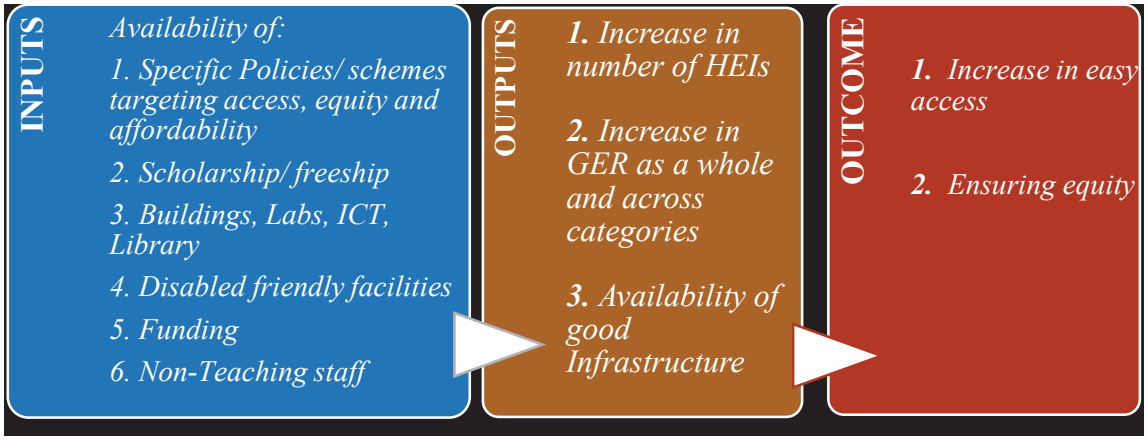
Access to and Equity in higher education have been widely regarded as the basic and key responsibilities of any government. Creating a high quality Higher Education system which is easily accessible to all sections of society is thus one of the main higher education outcomes that a government seeks to achieve on account of its many efforts and initiatives in this regard.

Doubling of enrolment would be essential which would have to include increased opportunities and access for students from socio-economically disadvantaged sections.

In order to assess the performance of HEIs and GoWB towards achieving the goal of creating a high quality Higher Education system which is easily accessible to all sections of society, the following audit objective was framed.

2.4.1 Audit Objective 3: Whether Equitable Access to Quality Higher Education was ensured to all

The equity and access related outcomes and their relationship with the contributing factors can be understood from the representation below.



To ensure progress towards achievement of these outcomes, specific policies and schemes targeted towards easy access, broad based equity and affordability

have to be designed. Appropriate funding should be made available for developing infrastructure such as institution buildings, laboratories, libraries, ICT facilities, *etc*. Moreover, scholarships/ freeships and disabled friendly facilities must be ensured especially for the benefit of socio-economically backward and the disadvantaged sections of the society.

As per RUSA guidelines para 4.2, each state must undertake a Baseline Survey followed by the preparation of State Higher Education Plans, which would be further broken down into annual plans. While carrying out the audit of Higher Education Department, GoWB, it was observed that the HED did not prepare any baseline survey to determine the intake capacity of the HEI, neither did it collect information about the number of students enrolled in the HEIs. In the absence of complete information, Audit examined AISHE data and data/ information received from two universities, *i.e.*, BU and NBU. Further, it was observed that the data uploaded by the test-checked HEIs did not tally with those found by Audit as per records during scrutiny as detailed in ***Appendix 2.3***. Hence, the AISHE data that the HED was relying on for formulating policy, was not completely reliable.

2.4.1.1 Easy access to higher education

Twelfth FYP in paragraph 21.187 envisages that focus should be towards achieving higher access through better utilization of the existing infrastructure, upgradation of the infrastructure and creation of new institutions primarily to meet the objective of regional equity. Moreover, GoI's output outcomes frameworks[45] and GoWB's Budgets[46] over the last few years have also laid emphasis on increasing access to higher education through establishment of new HEIs and increasing the capacities of existing HEIs.

Number of Higher Education Institutions in West Bengal: MHRD has been conducting an annual web-based All India Survey on Higher Education (AISHE) of all the Institutions in the country engaged in imparting higher education, since 2010-11. As per AISHE Reports, the number of all types of universities, colleges, college density[47] and average enrolment per college in West Bengal during 2010-19 are as shown in **Table 2.15** below:

Table 2.15: Number of all types of HEIs in West Bengal

Year	Number of all types of universities	Number of all types of colleges	College density	Average enrolment per college
2010-11	22	857	8	1,655
2011-12	26	899	8	1,439
2012-13	26	955	9	1,498
2013-14	27	985	9	1,487
2014-15	31	1,051	10	1,455
2015-16	34	1,082	10	1,427
2016-17	41	1,208	11	1,323
2017-18	43	1,341	12	1,170
2018-19	45	1,371	13	1,170

Source: AISHE Reports

[45] *Under Grant No. 58 of GoI's output outcomes framework 2017-18 onwards.*
[46] *Grants are being provided under budget head 4202 for construction of college buildings.*
[47] *Number of colleges per lakh eligible population.*

West Bengal lagged way behind the all India average college density of 28. As there is no benchmark in College Population Index[48], comparison of College Population Index of the State with three best performing States and all India average is shown in **Table 2.16** below:

Table 2.16: Comparison of College Population Index of West Bengal with All India average, best performing State and two other comparable States

	2014-15	2015-16	2016-17	2017-18	2018-19
West Bengal	**10**	**10**	**11**	**12**	**13**
Karnataka (best)	49	50	53	51	53
Tamil Nadu (comparable state in population)	33	32	33	35	35
Andhra Pradesh (comparable state in Human Development Index ranking)[49]	47	45	48	48	49
All India	**27**	**28**	**28**	**28**	**28**

Source: AISHE Report 2018-19

It is seen from the above that there is huge gap of College Population Index with the states of Karnataka, Andhra Pradesh and Tamil Nadu. The College Population Index of West Bengal (13) during 2018-19, was less than half of the All India average (28).

This indicates that West Bengal is still lagging substantially from All India average. Moreover, the desired outcome of increase in access was adversely affected by rural/ urban imbalances and low GER as would be evident from the succeeding paragraphs.

2.4.1.2 Regional imbalances in Accessibility

Imbalance between urban and rural areas: The Twelfth FYP (2012-17) states that the aim should be at correcting the regional imbalances in the distribution of institutions. Audit sought to assess the status of accessibility to higher education in West Bengal by comparing inter se availability of HEIs in urban and rural areas.

Urban/ rural area-wise distribution of general degree government/ government-aided colleges *vis-à-vis* projected population of persons of age group 18-23 years during 2014-19 on the basis of Census 2011 is given in **Table 2.17** below:

[48] *College Population Index –College per lakh population in 18 – 23 years age.*

[49] *In terms of Human Development Report 2018 brought out by UNDP, West Bengal has an HDI of 0.641 and Andhra Pradesh has an HDI of 0.650, while All India HDI is 0.647.*

Table 2.17: Urban/ rural area-wise distribution of general degree colleges *vis-à-vis* population of age group of 18-23 years

Year	Number of general degree colleges			Projected population of person of age group of 18-23 years as per census 2011		
	Total college	Colleges in urban area (percentage)	Colleges in rural area (percentage)	Total population (in lakh)	Percentage of population residing in urban area	Percentage of population residing in rural area
2014-15	440	218 (49.55)	222 (50.45)	109.25	29	71
2015-16	460	219 (47.61)	241 (52.39)	109.09	29	71
2016-17	486	225 (46.30)	261 (53.70)	108.91	28	72
2017-18	500	222 (44.40)	278 (55.60)	108.73	28	72
2018-19	506	226 (44.66)	280 (55.34)	108.53	27	73

Sources: Information provided by Dy. DPI, West Bengal

Though 34 new colleges (Government college: 27 and Government aided colleges: seven) have been established in the State during last five years, no college was established in eight[50] districts, of which five districts where proportion of people belonging to backward classes is relatively higher (more than 25 *per cent* SC and ST population).

Comparison of the College Population Index (Number of colleges per lakh student in the district) and the GER of the district against the State average revealed that in eleven[51] out of 19 districts both the College Population Index and the GER were lesser than the State figures. It was observed that no colleges were established during 2014-15 to 2018-19 in five (Birbhum. Howrah, Cooch behar, South 24 Parganas and Uttar Dinajpur) out of these 11 districts. This called for concerted action from the HED in addressing the regional imbalances in terms of access to Higher Education.

The Higher Education Department had conducted a Geographic Information System (GIS) mapping of the HEIs in the State. However, HED was not guided by the GIS mapping when deciding about the location of new colleges.

It can be observed from the above table that regional asymmetry continues to be a matter of concern. Even after lapse of two years after the end of the Twelfth FYP period (2012-17), the urban/ rural area-wise distribution of colleges (rural: 55 *per cent*, urban: 45 *per cent*) falls way short of the desired balance in terms of proportion of population residing in those areas (rural: 73 *per cent*, urban: 27 *per cent*) .

2.4.1.3 Gross Enrolment Ratio

Gross Enrolment Ratio (GER) in Higher education is expressed as a percentage of the total enrolment in higher education, regardless of age to the eligible official population (18-23 years) in a given year. It is the responsibility of both

[50] *Birbhum: SC- 29.51 per cent and ST- 6.74 per cent; Howrah: SC- 15.42 per cent and ST- 0.45 per cent; Hooghli: SC- 23.58 per cent and ST- 4.21 per cent; North 24 Parganas: SC- 20.60 per cent and ST- 2.23 per cent; Coochbehar: SC- 50.11 per cent and ST- 0.57 per cent; Murshidabad: SC- 12.00 per cent and ST- 1.29 per cent; South 24 Parganas: SC- 32.12 per cent and ST- 1.23 per cent and Uttar Dinajpur: SC- 27.71 per cent and ST- 5.11 per cent.*

[51] *Bankura, Birbhum, Howrah, Jalpaiguri, Cooch Behar, Maldah, Paschim Medinipur, Purba Medinipur, Puruliya, South 24 Parganas and Uttar Dinajpur.*

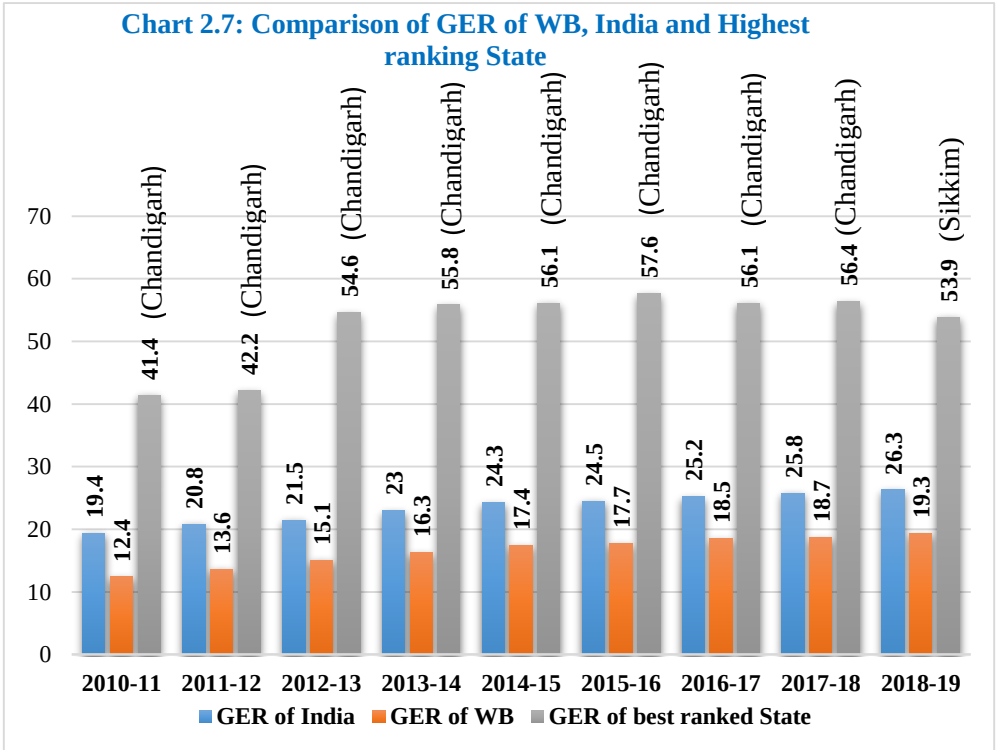
Central and State governments to put in place strategies and implement them so that the aim of enhanced equitable access to quality higher education is achieved.

Ministry of Human Resource Development (MHRD), GoI had declared its aim to expand the Higher Education sector in all its modes of delivery to increase the GER from 15 *per cent* in 2011-12 to 25.2 *per cent* by 2017-18 and 30 *per cent* by the year 2021-22. Further, in the 'State Higher Education Plan 2018' of the State Government target was also fixed to increase GER in Higher Education to 26 *per cent* by end of FY 2021 and subsequently to 30 by end of FY 2025.

In this context and to assess the efforts of GoWB in this regard, ***Increase in Gross Enrolment Ratio with respect to its target during 2010-19*** was used as an indicator ***(Sl. No. 18 of Appendix 2.2)***.

Trend of GER in HE in West Bengal compared to other States: It was observed that State Government did not maintain any data regarding GER, and enrolment of students in all HEIs. GoWB depended on data published in AISHE reports. **It is seen that in terms of GER at Higher Education level, rank of West Bengal among the States and UTs hovered between 27 and 29 during 2010-11 to 2018-19. The following Chart shows the same in details:**

Chart 2.7: Comparison of GER of WB, India and Highest ranking State



Source: AISHE reports

It may be seen that GER of West Bengal has consistently been lower than national GER in all the years. It is far short of its own target of 26 to be achieved by 2020-21.

In this respect, the following was further observed:

- As per AISHE reports, West Bengal is at tenth position in terms of number of colleges (1,371 colleges in 2018-19) and at 29th position in terms of college density (13 colleges per lakh population) in 2018-19.

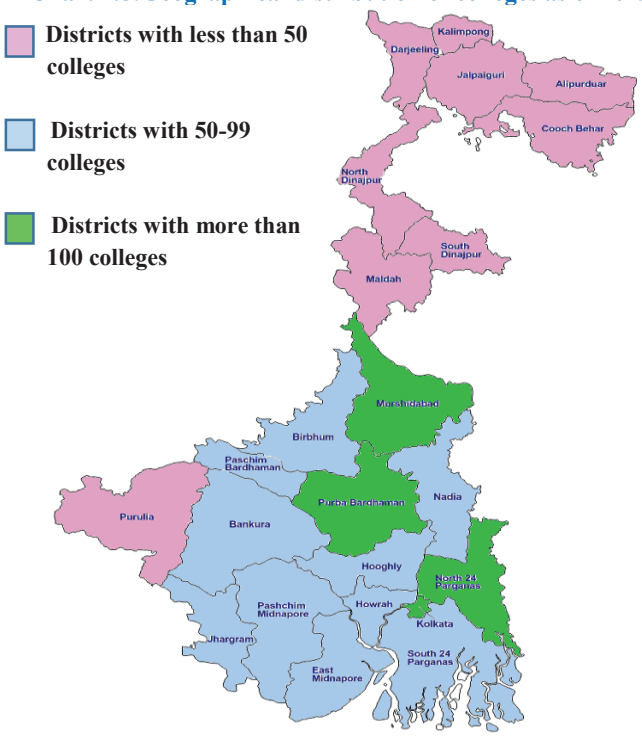
- Data of district-wise distribution of colleges taken from AISHE report 2018-19 shows the following position, which would be indicative of skewed distribution of colleges among the districts.

Table 2.18: Distribution of colleges among districts

	2014-15		2018-19		Students per Instt.	
	College	Students	College	Students	14-15	18-19
Four districts with more than 100 colleges	**500** (75 to 171 per district)	6,10,952	**593** (122 to 179 per district)	6,47,375	**1,031 to 1,301**	**766 to 1,282**
Eight districts with 50 to 99 colleges	**403** (40 to 78 per district)	5,86,024	**564** (50 to 92 per district)	6,34,511	**1,042 to 1,857**	**808 to 1,360**
Seven districts with less than 50 colleges	**161** (9 to 36 per district)	3,17,678	**230** (21 to 45 per district)	3,27,694	**1,125 to 3,667**	**1,017 to 2,290**

Sources: Information provided by Dy. DPI, West Bengal

Chart 2.8:Geographical distribution of colleges as of 2019



Thus, the fact that during 2018-19 West Bengal had higher rank in terms of number of colleges (tenth), but given its large population it slips back to 29 in terms of college density. Lower rank in terms of GER (27th rank) could be attributed to the skewed availability of colleges across different regions/ districts of West Bengal. **The whole of North Bengal along with the western district of Purulia had less than 50 colleges per district while the rest of the State had over 50/ 100 colleges per district.**

- ***Recommendation:*** *In order to achieve overall GER of 30 per cent by 2025 as targeted under the 'State Higher Education Plan 2018' of West Bengal, the State Government may prioritise providing access to higher education in rural areas.*

2.4.2 Ensuring Equity in Higher Education

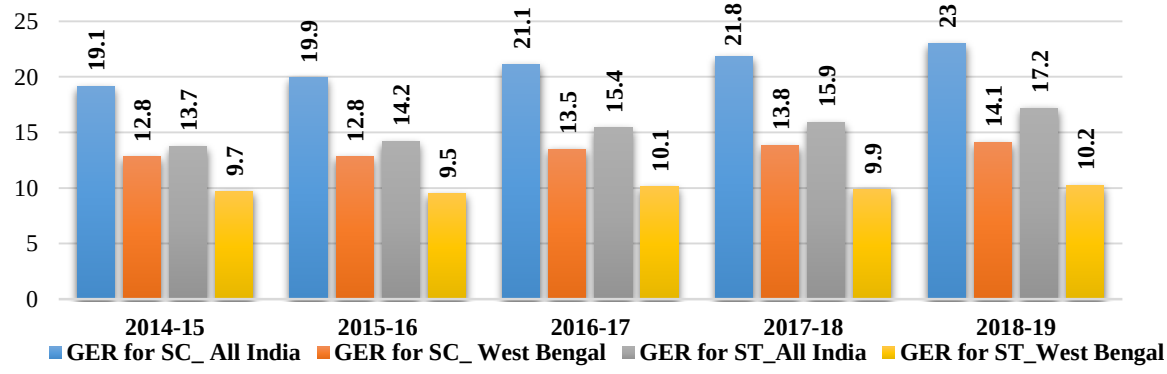
Twelfth FYP in paragraph 21.239 envisaged that a targeted approach focusing on Scheduled Caste (SC) and Scheduled Tribes (ST) dominated regions and convergence of various equity schemes in a composite manner would be critical to address the educational needs of the disadvantaged sections including the Other Backwards Classes (OBCs) and to enhance their inclusion in the mainstream of higher education. Further, as per paragraph 2.2.2 (a) of Report on 'Inclusive and Qualitative Expansion of Higher Education', 12th Five Year Plan, 2012-17 shall aim at complete elimination of gap between men and women in access to higher education.

GER of disadvantaged groups: SCs, STs, OBCs, disabled, and women have generally been considered as the disadvantaged sections of the society and many policies and schemes target their enhanced enrolment in higher education.

To assess efforts of the State Government in this regard, ***Increase in Category-wise Gross Enrolment Ratio with respect to All India Ratios/ targets during 2014-19*** was used an indicator ***(Sl. No. 19 of Appendix 2.2)***.

Data with respect to GER of OBCs, minorities and disabled categories was neither available nor maintained at any of the levels of GoWB and HEIs. In the absence of complete data, Audit could only analyse the GER of SC/ ST categories. **It is seen that representations of SC and ST students in Higher Education (17.87 and 3.20 *per cent* respectively) were not commensurate with the corresponding overall percentages of SC and ST population (23.5 and 5.8 *per cent* respectively). Moreover, in terms of GER of SC/ ST students, West Bengal consistently lagged behind All India figures during 2014-19 as shown below**:

Chart 2.9: GER of SC and ST category



Source: AISHE reports

As regards Gender Parity Index[52] also, West Bengal fell short of the All India Index every year.

In order to achieve targeted overall GER, planned efforts for enhancing GER across all categories need to be undertaken and sustained over a long period of time.

2.4.2.1 Institutional mechanisms to assist disadvantaged groups

Apex planning and regulatory institutions (UGC and NAAC) have emphasized the importance of setting-up and strengthening institutional mechanisms such as SC/ ST/ OBC Cells, Community Education Development Cell (CEDC)[53], *etc*. UGC in its directions issued (September 2009) to universities stated that Equal Opportunities Cell (SC/ ST Cell) should be set-up to improve the infrastructure and basic facilities so as to help SCs, STs, OBCs (non-creamy layer) and minorities to achieve at least the threshold level and to promote enhancement of quality.

[52] *It is calculated as the quotient of number of females by number of males enrolled in higher education institutions.*

[53] *As per Report on 'Inclusive and Qualitative Expansion in Higher Education' issued under 12th FYP, CEDC should monitor the intake of students, performance, capacity building efforts, along with intake in faculty and administrative staff from deprived social groups, including minorities.*

Information provided by two test-checked universities and 13 selected colleges disclosed the following:

(i) University of Burdwan (BU) and its test-checked colleges: The University constituted an SC/ ST Cell. However, they did not provide data about organization of any seminar or courses. The CEDC was not constituted in the University. SC/ ST Cell was constituted in three out of seven test-checked colleges under BU whereas CEDC was constituted only in Acharya Sukumar Sen Mahavidyalaya, Gotan out of seven test-checked colleges.

(ii) University of North Bengal (NBU) and its test-checked colleges: The University constituted an SC/ ST Cell and conducted special coaching for the SC/ ST students for NET/ SET and other competitive examinations. However, CEDC Cell was not constituted in the University. SC/ ST Cell was constituted in three out of six test-checked colleges under NBU but CEDC was not constituted in any of the test-checked colleges.

Thus, to a large extent, due to non-constitution of CEDC the students belonging to disadvantaged sections in all the test-checked universities and colleges were not proactively made aware of all the initiatives and programmes in place to put them on an equal footing.

2.4.2.2 Gender equity promotional programmes and gender sensitive facilities

During accreditation of a higher education institution, NAAC evaluates the performance of an institution on promotion of gender equity and sensitivity and considers it as a key indicator of 'Institutional Values'. The HEI's initiatives in terms of the number of gender equity promotional programmes[54] organized and gender sensitivity facilities (safety and security, counseling and common room, *etc.*) being provided are assessed.

Scrutiny of information provided by test-checked universities and colleges disclosed that:

- **University of Burdwan and its test-checked colleges:** During 2014-19 one such program was organized by Women Studies Department of the University wherein 50 students participated. In five out of seven test-checked colleges, on an average six gender equity programmes were held in which on average 82 students participated during 2014-19.
- **University of North Bengal and its test-checked colleges:** Thirty-six such programmes were organized wherein 54 papers were presented and 1,283 students participated during 2014-19 in the University. In four out of six test-checked colleges on average five gender equity promotional programmes were organized in which average 437 students participated during 2014-19.

Thus, North Bengal University took greater efforts in organizing gender sensitization programmes as compared to Burdwan University. However, it was a matter of concern that four test-checked colleges (two each under BU and NBU) did not hold any promotional programme during five years covered.

[54] *Sexual harassment and violence against women, women's right and access to criminal justice, legal awareness about women related laws, etc.*

2.4.3 Affordability

Affordability is an important enabler for equitable and easy access to higher education. Regulated fee structure, comparable fees in government, government-aided and private colleges, attractive student loan schemes and ample opportunities for availing scholarships/ free-ships are some of the factors that contribute towards making higher education affordable.

2.4.3.1 Uniformity in fee structure

As per UGC (Affiliation of Colleges by University) Regulation, 2009 fees to be charged from each student should be approved by the affiliating university based on the norms of the UGC from time to time.

It was observed that in spite of specific provision, none of the test-checked universities was involved in approval of fees structure for its affiliated colleges. Fees structure was decided by test-checked government-aided colleges on their own. GoWB also did not prescribe uniform fee structure for government-aided colleges as well as government colleges.

Comparison of college fees: The details of course-wise annual fee charged by 13 test-checked government colleges and government-aided colleges during 2018-19 are given in **Table 2.19** below:

Table 2.19: Annual fee charged by 13 test-checked colleges

Name of courses	Range of annual fee charged in four test-checked government colleges (Amount in ₹)	Range of annual fee charged in nine test-checked government-aided colleges (Amount in ₹)
B.A.	659-2,430	1,590-5250
B.Com	789-1,185	2,080-2,440
B.Sc.	1,049-2,880	2,330-9,110
M.A.	1,634-1,945	None of the test-checked Govt. aided colleges offers any Master Level courses
M.Sc.	2,099-2,420	

Source: As per information collected from concerned test-checked affiliated colleges.

It was observed that test-checked four government colleges charged annual fees ranging from ₹ 659 to ₹ 2,880 for above mentioned UG courses while nine test-checked government-aided colleges charged annual fees ranging from ₹ 1,590 to ₹ 9,110 for the same courses during 2018-19. Thus, in the absence of adoption of any mechanism for monitoring the fee structure, government-aided colleges charged significantly higher fees as compared to government colleges.

2.4.3.2 Scholarship/ freeship

Scholarship/ freeship[55] schemes, as a facilitative mechanism, have been widely used by governments to not only encourage meritorious students but also to enhance equitability in access to higher education. In para 6.1.2 (c) of Report on 'Inclusive and Qualitative Expansion in Higher Education' issued under 12th FYP, it is advised that for enhancing participation of SC/ ST/ Minorities, scholarships and fellowships for students of SC/ ST/ OBC/ Minorities may be enhanced at all levels.

[55] *Scholarship means a sum of money/ other aid granted to a student, because of merit, need, etc., to help him/ her pursue studies. Freeship means that tuition fee is paid by the sponsoring or aiding authority.*

The position of students benefitted by scholarship by government at test-checked institutions is discussed below:

At institution level: During accreditation of an institution, under the key indicator of 'Student Support and Progression', NAAC assesses average percentage of students benefited by scholarships and freeships by government schemes during last five years.

Therefore, to assess the efforts made by test-checked institutions in encouraging students to avail benefit of scholarship and freeship schemes of government and in implementing these schemes, ***average percentage of students benefited by scholarships and freeship by the Government during 2014-19*** was used as an indicator ***(Sl. Nos. 20 and 21 of Appendix 2.2)***.

Scrutiny of information provided by two test-checked universities and 13 test-checked government/ government-aided colleges revealed the following:

(i) Burdwan University and its test-checked colleges: It was observed that an average of 68.34 *per cent* and 48.06 *per cent* students were benefited from scholarship and freeships respectively during 2014-19. Similarly, 62.93 *per cent* students were benefited by scholarship/ freeships in seven test-checked colleges during 2014-19.

(ii) North Bengal University and its test-checked colleges: It was observed that an average of 63.56 *per cent* and 16.19 *per cent* students were benefited from scholarships and freeships respectively during 2014-19. On average 56.56 *per cent* students were benefited by scholarships and freeships in five out of six test-checked colleges during 2014-19.

During accreditation of universities, NAAC awarded maximum score to the institutions where on average 40 *per cent* and above students are benefited by scholarships and freeships in the institution. Hence, as per NAAC benchmarks, both the universities and nine out of 13 test-checked colleges were eligible for scoring maximum marks. However, three out of 13 test-checked colleges could not score the maximum marks. Information in respect of one college under NBU (Sonada Degree College) was not available.

Recommendation:

- *In order to make higher education affordable the State Government and the affiliating universities may regulate fee structure of government-aided colleges particularly in areas where State Government is not in position to open Government College.*

2.4.4 Infrastructure

Adequacy of physical infrastructure and facilities with basic hygienic requirements is crucial in creating a conducive learning environments in HEIs. Apart from basic amenities like safe drinking water and functioning toilets, well designed campus with pleasant classrooms with adequate furniture; materials and infrastructure to support differently abled students; computers and computer rooms, internet connectivity, and institutional e-mail; science laboratories; vocational education spaces; materials for arts/ crafts, *etc.*, aids the learning atmosphere.

Some of these aspects were assessed during audit and the related observations are discussed below:

2.4.4.1 Availability of ICT facilities

To assess the efforts made by test-checked institutions to encourage advanced teaching methods through the use of ICT, ***(i) percentage of classrooms/ seminar halls with ICT- enabled facilities such as smart class, Learning Management System, etc., during 2018-19 (current year)*** and ***(ii) Student Computer ratio during 2018-19 (current year)*** were used as indicators ***(Sl. Nos. 22 and 23 of Appendix 2.2)***. These are also the key indicators used by NAAC during assessment and accreditation process of HEIs.

Paragraph 21.265 of Twelfth FYP inputs focus on use of ICT in higher education by providing smart classrooms and setting-up classrooms with interactive video-conferencing facilities. Further, the State Government also provides grants to government colleges for setting-up of smart rooms.

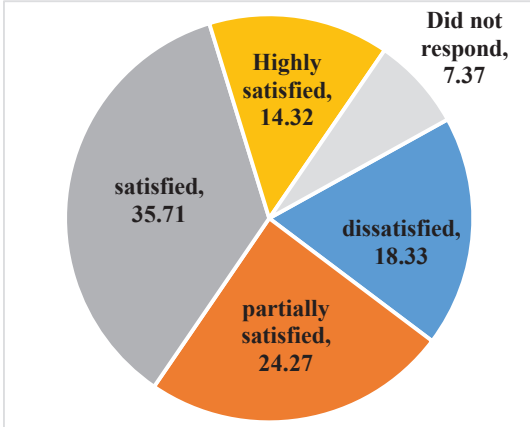
The position of percentage of ICT enabled classrooms and Student Computer Ratio in BU, NBU and test-checked colleges during 2018-19 are given in **Table 2.20** below:

Table 2.20: Percentage of ICT enabled classrooms and Student Computer Ratio in test-checked Universities and colleges during 2018-19

Name of university	Percentage of ICT enabled classrooms			Student Computer Ratio		
	Total number of classrooms	No. of classrooms with ICT	Percentage	Total number of students enrolled	No. of computers in working conditions	Student Computer Ratio
Burdwan University	133	58	43.61	2,868	597	5:1
Seven colleges under BU	300	53	17.67	18,448	368	50:1
North Bengal University	92	48	52.17	1,448	337	4:1
Six colleges under NBU	170	23	13.53	12,201	176	69:1

Source: Information provided by concerned universities and colleges.

Chart 2.10: Student survey result: *Are you satisfied with Smart class rooms available in your campus?" (in percentage)*



ICT enabled classrooms: During accreditation of universities, NAAC awarded maximum score to the institutions where up to 80 *per cent* classrooms/ seminar halls are ICT enabled. Hence, as per NAAC benchmark, both the universities were not eligible for scoring marks with respect to this indicator. In response to a student survey on level of satisfaction on smart classroom facilities in campus, almost 43 *per cent* of students expressed full or partial dissatisfaction.

Student Computer Ratio: During accreditation of universities, NAAC awarded maximum marks to an institution on having Student Computer Ratio 10:1 and below. Thus, as per NAAC benchmark, though both the Universities were eligible for scoring maximum marks while none of the test-checked colleges was eligible for scoring any mark with respect to this indicator.

Thus, unlike the Universities, none of the colleges test-checked was sufficiently equipped with ICT facilities which indicate that advanced teaching methods were used only to a limited extent. Moreover, dearth of computers in the colleges indicates that IT enabled learning by these HEIs were insufficient.

2.4.4.2 Availability of buildings, laboratory, library, etc.

Buildings, classrooms, laboratories, and equipment are crucial elements of learning environment in universities and colleges. Sufficiency of infrastructure was evaluated in audit on the basis of norms fixed by UGC. Each University should have a well stacked, comprehensive, automated and digitized Central Library. As such, efforts may be made by the University to not only enrich the Central Library, but also to make it fully computerized. The UGC norms specifies requirements of buildings (lecture/ seminar rooms with a minimum 15 sq. ft per student, library, and laboratories with 20 sq. ft per student). Scrutiny of records of the infrastructure disclosed the following:

Infrastructure of the BU: Though the total area[56] of academic buildings, Library and Laboratories, auditorium, sports facilities in BU was adequate for the University as a whole, yet 11 out of 33 departments[57] did not have adequate classrooms, while five departments[58] did not have sufficient laboratory space.

- The Central Library of BU having all the facilities was housed in a two-storied building in the Campus. It had a carpet area of about 6,844 m^2.
  - Computerized library activities and networking of the Central Library had been undertaken under INFLIBNET programme of the UGC. Online Public Access Catalogue (OPAC) services was extended to all the departments through local area network.
  - The work of Radio Frequency Identification Device (RFID) was not implemented in the Central Library of the University till date. The accessioning and time cataloguing of the books purchased at the Central Library were done at regular basis with the incorporation of proper bar coding.
  - At the Central Library of BU, there were 8,000 rare books, 2,500 manuscripts, 1,983 reports for library enrichment.
  - The Central Library of the University was well connected through *e-shodhshindhu*[59] and *shodhganga*[60]. E-journals were subscribed by the university under UGC-Infonet programme.

[56] *Requirement: In case of Classroom/ seminar rooms minimum of 15 sq ft/ student and in case of library/ laboratory minimum of 20 sq ft/ student to be provided. The total area of BU Arts buildings – 20,718 sqm (2,23,008 sq ft), Library – 6,844 sqm (73,668 sq ft), Science buildings (Class rooms) – 14,032 sqm (1,51,040 sq ft) and Laboratories-7,016 sqm (75,520 sq ft).*

[57] *Departments not having adequate classroom space were Physics, History, Statistics, Bio-Technology, Microbiology, Political Science, Chemistry, Philosophy, Mathematics, Sanskrit and Zoology. For example Physics department had 14 sq ft/ student and Biotechnology department had 12 sq ft/ student classroom space.*

[58] *Departments not having adequate laboratory space were Botany, Chemistry, Statistics, Mathematics and Zoology.*

[59] *Based on the recommendation of an Expert Committee, the MHRD has formed e-shodhsindhu which is to provide access to more than 15,000 core and peer-reviewed journals and a number of bibliographic, citation and factual databases in different disciplines.*

[60] *shodhganga is a digital repository of Indian Electronic Theses and Dissertation accessible to all institutions and universities.*

Infrastructure of the NBU:

Scrutiny of infrastructure disclosed the following:

- Though the total area of NBU was 330 acres, infrastructure in respect of classrooms and laboratory was inadequate. Eight out of 40 classrooms, were as per UGC norms. Further, five out of 31 laboratories possessed required size as per UGC norms, *i.e.*, 20 sq ft per student.
- The University Library had a separate 3,108 m^2 fully automated premises equipped with Integrated Library Management System.
    - The work of Radio frequency Identification Device RFID was not implemented in the Central Library of the University till date. The accessioning and time cataloguing of the books purchased at the Central Library were done at regular basis with the incorporation of proper bar coding.
    - In the Library there were 652 rare books[61] and 1,794 reports.
    - The IP based system in the Central Library of NBU was yet to be operational.

Though BU had sufficient infrastructure in place as per UGC norms, NBU was lacking in e-library infrastructure.

Physical infrastructures in affiliated colleges: The position of availability of these facilities in the test-checked colleges is given in **Table 2.21** below:

Table 2.21: Availability of facilities in affiliated colleges

Name of University	Status of colleges	Total no. of test-check affiliated colleges	No. of colleges having sufficient administrative and academic building	No. of colleges having lab* facilities	No. of colleges having sufficient library facility	No. of colleges having sufficient furniture	No. of colleges having disabled friendly facilities
BU	Govt.	2	1	2	1	1	1
	Govt.-aided	5	2	2	4	3	1
NBU	Govt.	2	2	2	2	2	1
	Govt.-aided	4	2	2	2	3	2
Total	Govt.	4 (31%)	3 (75%)	4 (100%)	3 (75%)	3 (75%)	2 (50%)
	Govt.-aided	9 (69%)	4 (44%)	4 (44%)	6 (67%)	6 (67%)	3 (33%)

Source- Information provided by concerned test-checked affiliated colleges
**Laboratory for Science and Geography subjects*

Physical inspection, scrutiny of records and information depicted in above table revealed the following:

- Out of nine test-checked Government-aided colleges, only four had sufficient administrative and academic building, only four had laboratory facilities, six had sufficient libraries and had sufficient furniture and only three were found to have disabled friendly facilities[62] as prescribed in the 2009 regulations and Persons with Disability Act 1995.

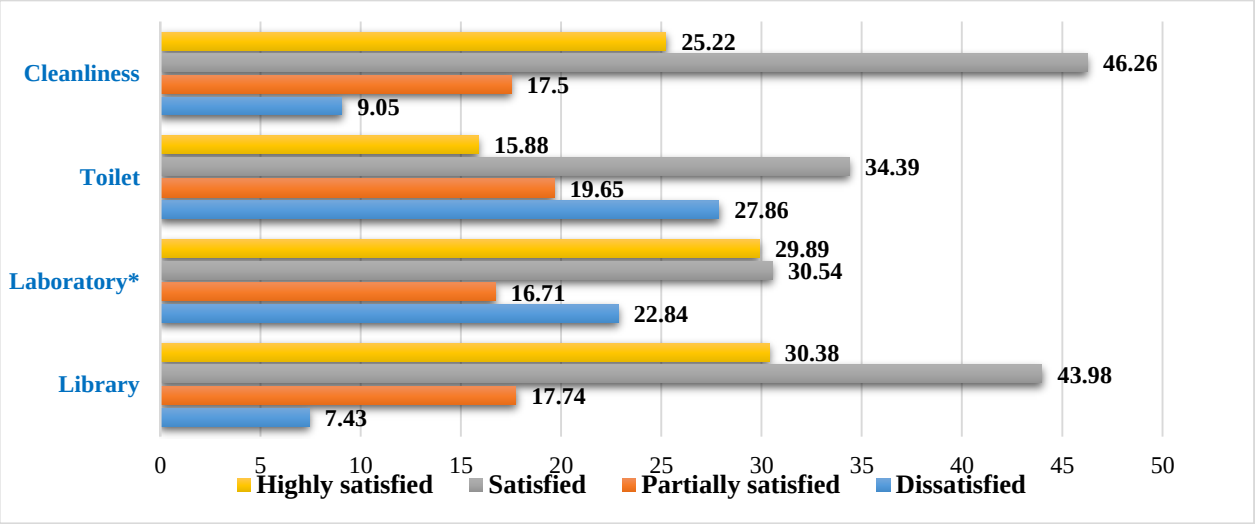
[61] *1. History of the British Empire in India, Author- Thornton, Edward, 2. Rise of the Dutch Republic, Author- Motley, John Lothrop, 3. Bramho-Samajer Itibritto, Author- Indian Mirar Yantra and 4. Annals of Rural Bengal, Author- Hunter, WW and 5. Purana, Markandeya Author-Dutta, Manmathanath.*

[62] *Section 46 of Person with Disability Act 1995 read with NAAC manual envisages disabled friendly facilities including lifts, ramps, braille software, restrooms, scribes for examinations, special skill development for disabled students.*

- Similarly, out of four Government test-checked colleges, only three had sufficient administrative and academic buildings, three had sufficient library facilities and had sufficient furniture and two of them were found to have disabled friendly facilities.

Chart 2.11: Student survey result

"Are you satisfied with library, laboratory, toilet and cleanliness available in your campus?"(in percentage)



**For the purpose of calculating percentage in respect of laboratory, opinion of students (1,077 in number) belonging to streams necessitating laboratory facilities have only been considered*

Survey conducted among 1,669 students of two universities and 13 test-checked colleges in respect of facilities of toilet, cleanliness, laboratory and library revealed that 28 *per cent* students were dissatisfied on toilet, 23 *per cent* students were dissatisfied on laboratory. It transpired that satisfaction level (fully or partially) was highest in respect of library facilities.

Thus, many of the test-checked colleges (especially the Government-aided ones) did not fulfill all the essential infrastructure criteria for affiliation, which may compromise the learning atmosphere.

2.4.4.3 Funding for infrastructure

MHRD provides funds through Rashtriya Uchchatar Shiksha Abhiyan (RUSA) [63] for filling critical infrastructure gaps in higher education by augmenting and supporting the efforts of the State Governments. It provides infrastructure grants to universities and colleges for upgrading the existing infrastructure by way of new construction, renovation or purchase of equipment. State Government also provides funds to colleges for improvement of their existing college buildings, smart classes and purchases of computers.

To assess efforts of the test-checked universities in this regard, ***Average percentage of budget allocation, excluding salary for infrastructure augmentation during 2014-19*** was used as an indicator ***(Sl. No. 24 of Appendix 2.2)***. This indicator is also one of the key indicators used by NAAC during assessment and accreditation process of HEIs.

[63] *RUSA is the Hindi for "National Higher Education Mission". It is a holistic scheme of development for higher education in India initiated in 2013 by the Ministry of Human Resource Development, Government of India.*

The position of total budget allocation, expenditure on infrastructure, *etc*., in NBU and BU during 2014-19 is given in **Table 2.22** below:

Table 2.22: Budget allocation on infrastructure and total expenditure on infrastructure

(₹ in crore)

Name of university	Year	Budget allocation		Expenditure on infrastructure	Percentage of expenditure on infrastructure with respect to budget allocation on infrastructure
		Budget allocation excluding salary	Budget allocation on infrastructure		
Burdwan University	2014-15	106.31	31.52	10.14	32.18
	2015-16	91.49	21.83	7.51	34.42
	2016-17	83.54	21.21	13.19	62.18
	2017-18	80.35	16.72	7.03	42.05
	2018-19	76.09	8.75	7.30	83.39
Average					50.84
North Bengal University	2014-15	97.65	67.77	3.86	5.69
	2015-16	111.20	92.95	16.16	17.39
	2016-17	98.20	74.40	35.26	47.39
	2017-18	65.13	41.25	5.08	12.31
	2018-19	85.11	49.77	9.90	19.89
Average					20.53

Source: Information provided by concerned universities

Scrutiny of information provided by two test-checked universities revealed that for BU, expenditure on infrastructure with respect to budget allocation on infrastructure was 50.84 *per cent* on average during 2014-19 and 20.53 *per cent* for NBU.

2.4.4.4 Non-teaching staff

It was observed that as against the orders and sanctions issued from time to time by the State government/ Universities defining norms for recruitment and deployment of non-teaching staff in universities and colleges, a number of non-teachings posts was lying vacant (up to 50 *per cent*) in almost all offices/ departments of both the Universities during the year 2014-19 ***(Appendix 2.4)***. Vacancy was increasing every year due to retirement of staff and no step was taken to fill up vacant posts over the years. Instead, contractual and casual staffs were engaged against those vacancies.

Summary of observations in respect of Access and Equity in Higher Education

West Bengal is lagging substantially from All India average in terms of setting-up of new colleges.

Regional asymmetry continues to be a matter of concern. Even after lapse of two years after the end of the Twelfth FYP period (2012-17), the urban/ rural area-wise distribution of colleges (rural: 55 *per cent*, urban: 45 *per cent*) falls way short of the desired balance in terms of proportion of population residing in those areas (rural: 73 *per cent*, urban: 27 *per cent*).

Test-checked colleges were not sufficiently equipped with ICT facilities. Moreover, dearth of computers in the colleges indicates that IT enabled learning by these HEIs were insufficient.

Many of the affiliated test-checked colleges did not even fulfill the criteria of essential infrastructure for affiliation, which may compromise the learning atmosphere.

Due to non-constitution of institutionalized mechanism like Community Education Development Cell, the students belonging to disadvantaged sections in all the test-checked universities and colleges were not proactively made aware of all the initiatives and programmes in place to put them on an equal footing.

***Recommendations**:*

- *In order to achieve overall GER of 30 per cent by 2025 as targeted under the 'State Higher Education Plan 2018' of West Bengal, the State Government may prioritise providing access to higher education in rural areas and undertake the planned efforts to enhance GER across all categories.*
- *In order to make higher education affordable the State Government and the affiliating universities may regulate fee structure of government-aided colleges particularly in areas where State Government is not in position to open Government College.*
- *In order to provide an atmosphere congenial to quality education in colleges, the State Government and affiliating Universities should provide prescribed basic infrastructure in government/ government-aided colleges.*

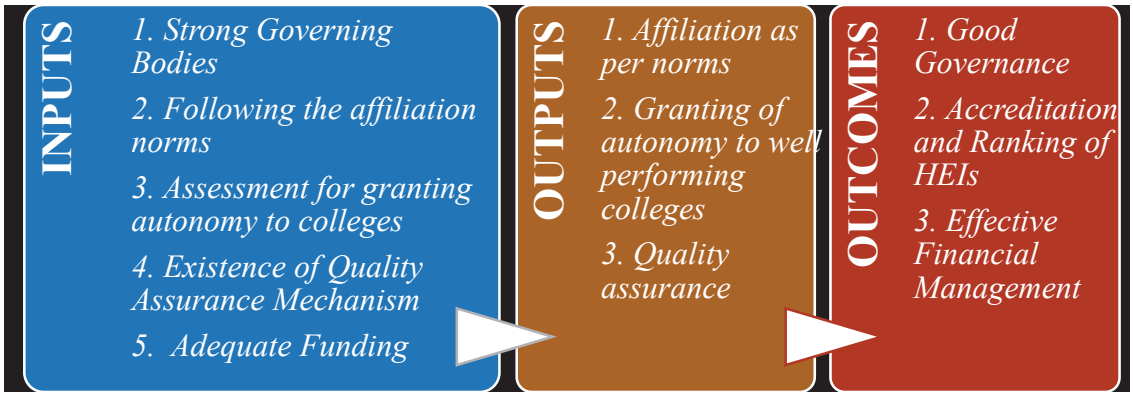
2.5 Governance and Management

Leadership and Governance deeply influence all aspects of Higher Education Institutions (HEIs). Though good governance and management are not the outcomes that are to be achieved in higher education, but they are crucial in determining the effectiveness of all the efforts aimed at achieving such outcomes.

In order to assess the status of governance and management in HEIs through various elements and mechanisms of HEI governance and the extent to which they have been effectively implemented in the selected HEIs, the following audit objective was framed.

Audit objective 4: Whether Governance and Management of Higher Education system was adequate and effective.

Various factors contribute to ensure that governance and management of an HEI is envisioned and carried out in a manner that effectively oversees the efforts towards achievement of higher education outcomes. Affiliation of colleges, load of affiliation on universities, encouragement given towards autonomy, quality assurance and adequate funding acquire significance for HEIs to progress towards its goals. The relationship between the aims of adequate and effective governance and management in HEIs and factors, mechanisms and systems contributing towards achieving these aims can be understood through the following representation:



Effectiveness of governance and management structures of an HEI is reflected in the results of its evaluation through accreditation, ranking methodologies and in the prudence of financial management.

2.5.1 Governance

Effective governance structures and process are essential to ensure accountability and transparency in an HEI, sound systems and policies, aid in efficient and effective working of institutions. The existence and functioning of governance structures at state level and at institutional level have been discussed in this section.

2.5.1.1 State level Governance

Institutional mechanisms for governance, at the state level include setting up of State Higher Education Council and State Level Quality Assurance Cell.

(i) State Higher Education Council

Paragraph 21.308 of Twelfth FYP document states that it would be desirable for each State to set-up a State Higher Education Council (SHEC)[64] to lead the planned and coordinated development of higher education in the State.

- The State Government had reconstituted the SHEC[65] in 2015 keeping in view the guidelines of the UGC repealing the West Bengal State Higher Education Council (1994) through a legislation.

(ii) State Level Quality Assurance Cell

Every accredited institution should establish an Internal Quality Assurance Cell (IQAC) as a post-accreditation quality sustenance measure to develop a system for conscious, consistent and catalytic improvement in the overall performance of institutions. As per the guidelines issued by UGC, the State Level Quality Assurance Cell (SLQAC) shall monitor the functioning of IQAC in the colleges under their jurisdiction. The objective of SLQAC is to work towards quality improvement of colleges in the state, to draw up state-level action plan in consultation with NAAC and to act as nodal agency between the respective state HEIs and NAAC.

[64] *SHEC has a mandate to enhance the performance of the HEIs of the state, and strengthen the planning and coordination of education so as to fulfill the rising needs of society, undertake planned expansion, channelize Higher Education in the right direction considering the socio economic needs and act as an advisory body, a policy think tank on any matter related to Higher Education.*

[65] *State Council of Higher Education in West Bengal was established in 1994.It was reconstituted mainly for implementation of the reservation policy of the State Government in terms of the West Bengal State Higher Educational Institutions (Reservation in Admissions) Acts, 2013.*

NAAC in its accreditation process also gives importance to existence and functioning of SLQAC.

Scrutiny of information provided revealed the following:

- The HED did not lay down any quality benchmark, neither did it form the SLQAC.
- HED did not maintain any data regarding number of government/ government-aided/ private colleges which had constituted IQAC nor developed any mechanism to monitor whether government/ government-aided/ private colleges constituted IQAC or not.

SLQAC was envisioned as a cell that would work towards quality improvement of colleges. Due to non-formation of such cell HED failed to deliver on these aspects.

2.5.1.2 Institutional level Governance

Governance at the level of universities is to be carried out through an elaborate mechanism consisting of Governing Bodies (Court, Executive Council, *etc*.), quality assurance mechanism (IQAC), affiliation process (Inspector of Colleges, Council for Under graduate Studies CUGS), *etc*.

(i) Governing Bodies

Provisions relating to constitution and functioning of Senate/ Court, Syndicate/ Executive Council, Academic/ Faculty Council, Board of Study, Board of Inspections, faculty committees, college development council was as per respective governing act/ handbook of universities and other documents.

The Court: The Court[66] of the University is the highest level of Governing Body which consists of a number of Ex-Officio Members and Elected Members. In the test-checked Universities:

- In BU, during the last five years the composition of the Court (reconstituted in 2012 and 2016) was not complete with only 60 and 56 members out of the mandated 78 in position respectively. The ex-officio members (one) and the elected members (none) were not in position as shown in **Table 2.23** below:

Table-2.23 Composition of the Court in BU

Member	Number as per Act	Person-in-position	
		Constituted in 2012	Constituted in 2016
Ex-officio	16	15	16
HOD	33	25	33
Nominated by VC	15	15	7
Elected	8	0	0
Nominated by Chancellor	5	5	0
Invitee	1	0	0
Total	**78**	**60**	**56**

Source: BU Act 1981 and the notifications of the constitution of the Court constituted in 2012 and 2016 respectively

[66] *The functions of the Court include inter alia, to create Departments, to create teaching posts and Officer posts, to institute degrees, diplomas. Fellowships, scholarships, to confer degree titles and also to withdraw them, to consider the annual statement of accounts and annual report and other reports, to consider and advise on proposal from the EC to enter into any agreement with any body or authority, for taking up the management of any college or institute, co-operation with other institutions, to suggest measures for the improvement of the finances and administration and to make rules for the conduct of itself.*

Similarly in NBU, the Court had a sanctioned strength of 73 members from various fields of society, against which the actual strength of members remained 60 throughout the period of audit.

As per respective Acts of both the test-checked Universities, the Court was to meet at least thrice in a financial year, other than for convocation. In BU, there were 12 meetings in five years, of which there were only one meeting in 2015-16, and two each in the next two years. The average attendance in these twelve meetings of the court was 28. During these meetings, the Court had mainly approved the Budgets of the respective years and had taken decisions to set-up four new Departments. This was only a small fraction of the powers and functions of the Court as per the Act. The Court decided to open four new departments namely, Deptt. of Physical Education, Deptt. of Nutrition, Deptt. of Geospatial Science, and Deptt. of Cyber Security & Criminology, in the meetings held on 22.05.15, 22.06.17, and 22.01.19.

In NBU only one meeting was held in 2016-17. Average attendance in the meetings of the Court was as low as 29 out of 60 members. It was also seen that in two instances[67]two meetings were held on a single day which mainly dealt with issues of routine nature like leave of teachers, date of holding Annual convocation, approval of budget estimates, selection of a nominee for appointment to the Committee for selection of VC, *etc*. This was also a small fraction of the powers and functions of the Court as per the Act.

The Executive Council (EC): The EC[68] of the University is composed of some *Ex-Officio* members and some elected members and one/two nominated members. It was seen that-

- **In BU, none of the 12 elected members were in position in the EC reconstituted in May 2012. The actual strength of the EC remained 18 throughout the period of audit against the prescribed strength of 32 members, whereas no elected member was in position. The EC never met as per the mandated frequency (twice a month); only 71 against the mandated 120 meetings were held during the years 2014-19 and 23 meetings were held without the quorum.**
- **In NBU, The actual strength of the EC remained 15 throughout the period of audit against the prescribed strength of 30 members. In NBU, one-third of the total number of members of the Executive Council *i.e.* 10 members would make a quorum for a meeting of the Executive Council. However, nine out of total 35 EC meetings were held without quorum during 2014-19.**

[67] *23 November 2015 and 24 November 2017.*

[68] *The powers of EC inter alia include to initiate proposals for the making of Statutes and Ordinances, to recommend to the Court for establishment of University Departments/ institutions/ centres/ libraries/ laboratories/ museums for study and research, to maintain University Departments/ Institutions, etc.; to create, with the approval of the State Government, or to recommend to the Court for creation of posts of Officers, Teachers and other Employees of the University; to appoint Teachers, Officers and Employees of the University and to fix their emoluments and define their duties and other terms and conditions of service; to pass appropriate orders regarding affiliation of or withdrawal of affiliation or recognition of a college or an institution, etc.*

There were only nominated members and no elected members in both the Court and EC due to non-conduct of elections. Moreover, representatives of important stakeholders like teachers and students were also not present in the ECs.

In reply, the Registrar NBU agreed with Audit that shortfalls against prescribed strength in the authorities of the University impeded enriched decision making process.

The Registrar, NBU stated that in spite of receiving invitation, majority of Court members were absent from the meeting as attendance was not mandatory.

In reply, BU stated (December 2020) that the quorum of the meeting had been considered taking the number of existing members in position in the respective body. The reply is not acceptable as the University's interpretation of the quorum for a meeting is not supported by the provision of the Act.

Other Governance mechanisms:

- It was also observed that the Acts of both Universities provided for constitution of Council for Undergraduate Studies (CUGS) in Arts, Science, Commerce and Law under the Chairmanship of the VC. The Council shall, *inter alia*, recommend to the EC for the affiliation of a college, exercise general supervision over the colleges, ensure that the standard of teaching is maintained and the syllabi are completed within the academic year, *etc*. It was noticed that CUGS did not hold any meeting since May 2011 in any of the test-checked Universities.
- As per UGC Guidelines University should form College Development Council (CDC) to facilitate channelizing of the UGC schemes to Colleges. CDC is to invite proposals from its affiliated colleges for UGC grants and recommend to UGC. CDC was not formed in any of the test-checked universities.

The authorities of both test-checked universities did not furnish any reply.

Thus, the main governing bodies that are responsible for ensuring high quality education, were not functioning properly. The Universities were envisaged to function factoring in ideas arising out of consultation with different stakeholders. The University statutes envisaged representation of such stakeholders in the composition of the court and executive council. Insufficient representation of stakeholders in governing bodies compounded by holding of meetings without quorum, therefore, resulted in dilution of the idea of consultative governance.

(ii) Internal Quality Assurance Cell

Report on 'Inclusive and Qualitative Expansion in Higher Education' issued under Twelfth FYP states that in order to internalize quality inputs all universities, government colleges and government-aided colleges are to be strengthened with full-fledged Internal Quality Assurance Cell (IQAC) as part of UGC-supported scheme.

Scrutiny of records of test-checked two universities and 13 government/ government-aided colleges revealed the following:

- At NBU, IQAC takes feedback from the students only, analyses feedback of the students and submits the same to departments. No feedback was taken from parents, employers, other stake holders, though it was a part of the mandate of IQAC. In contrast, IQAC at BU claimed to have initiated action for taking uniform student feedback, guardian feedback and for introducing e-governance. However, none of these were documented.
- At NBU, IQAC had developed quality benchmark/ parameters for academic departments, central library and offices and sent them for self-evaluation by offices and departments. No such effort was done at BU.
- At NBU, IQAC prepared and submitted Annual Quality Assurance Report (AQAR) to NAAC upto 2017-18. Preparation of AQAR for 2018-19 was in process. In BU, AQAR report was submitted to NAAC and uploaded in the University Website upto the year 2018-19.
- Though IQAC was found to be constituted in all the test-checked Government colleges and seven out of nine test-checked government-aided colleges, details of meetings held and work done by IQAC were not made available.

Thus, in two test-checked universities, though IQACs were constituted but there remains ample scope for improvement in their functioning. Further, IQAC was not constituted in two test-checked government-aided colleges[69]. Even where constituted, details of its functioning were not provided to audit. Hence the objective of IQAC to develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution was not fulfilled. The measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices were not achieved.

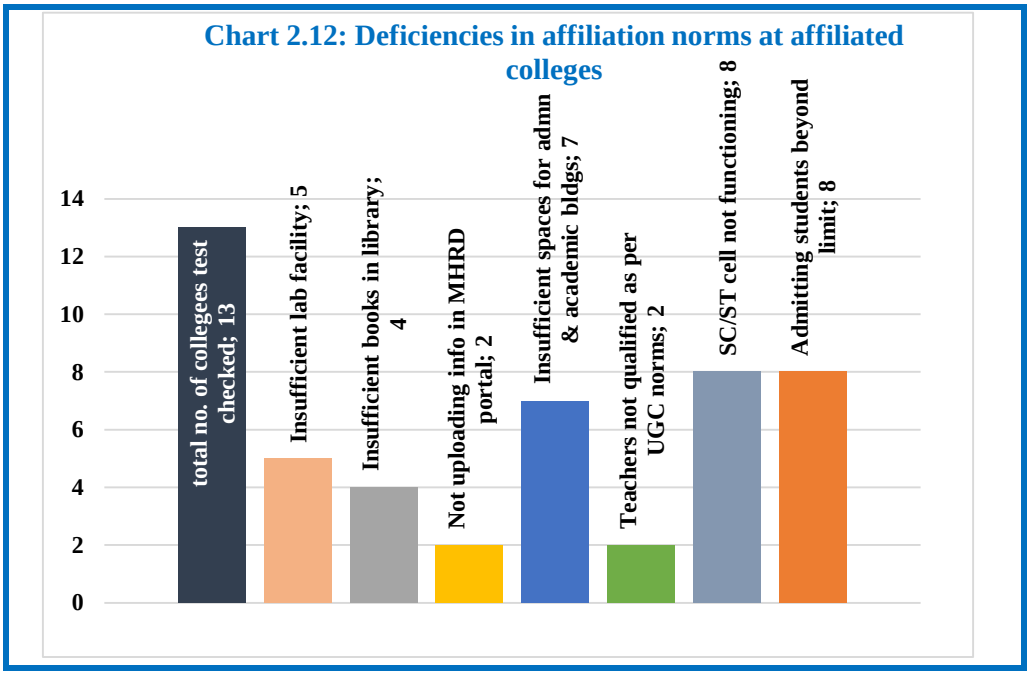
(iii) College Affiliation

UGC (Affiliation of Colleges by University) Regulation, 2009 defines affiliation of a college as its recognition by, association with, and admission to, the privileges of the affiliating university. At the time of inspection by affiliating university, the concerned college (seeking affiliation) either run by State Government or private body, shall satisfy pre-defined requirements in relation to college buildings[70].

Details of test-checked colleges affiliated to two selected universities in West Bengal related to adherence to affiliation norms are given in ***Appendix 2.5***. An analysis of the ***Appendix 2.5*** is shown below graphically.

[69] *Dr. Gour Mohan Roy College, Monteswar and Vivekananda College, Alipurduar.*

[70] *lecture/ seminar rooms and library with a minimum 15 sq ft per student, and laboratories with 20 sq ft per student, library with 1,000 number of books, fully equipped laboratories, etc., as specified in the Regulation.*



As per the Act of BU and NBU, affiliation of colleges was to be examined in terms of 'Statues relating to affiliation of colleges' and UGC (Affiliation of colleges by universities) Regulations, 2009 and its subsequent amendments. However, in actual practice the HED decides the location for setting-up, selection of subjects, intake of students, staffing, *etc*., in respect of the new colleges. It only instructs the VC of the University to inspect the colleges for affiliation.

It was clear from the Reports of the Inspector of Colleges of BU that the colleges neither had the required infrastructure nor the manpower for the subjects for which affiliation was proposed. Though the affiliation was provisionally given on the fulfillment of certain conditions, however the deficiencies found during inspection were not checked before grant/ extension of affiliation.

Further, 20 to 62 *per cent* of the test-checked colleges did not meet six out of the nine affiliation norms. Thirty-eight *per cent* colleges[71] did not have sufficient laboratories while 32 *per cent*[72] did not have sufficient library books, 20 *per cent*[73] colleges did not upload information in Know your College portal, 62 *per cent* colleges admitted students beyond their approved intake capacity[74], did not have sufficient administrative and academic buildings[75] and did not constitute SC/ ST cell[76].

[71] *Kabi Joydeb Mahavidyalaya; Acharya Sukumar Sen Mahavidyala; Dr. Gour Mohan Roy College; Vivekananda College, Alipurduar and Sonada Degree College.*

[72] *Hooghly Mohsin College; Acharya Sukumar Sen Mahavidyala; Vivekananda College, Alipurduar and Sonada Degree College.*

[73] *Hooghly Mohsin College and Darjeeling Government College.*

[74] *Hooghly Mohsin College; Gushkara Mahavidyalaya; Kabi Joydeb Mahavidyalaya; Tarakeswar Degree College; Dr. Gour Mohan Roy College; Darjeeling Government College; Maynaguri College and Prasannadeb Women's College.*

[75] *Hooghly Mohsin College; Kabi Joydeb Mahavidyalaya; Dr. Gour Mohan Roy College; Acharya Sukumar Sen Mahavidyala; Vivekananda College, Alipurduar; Maynaguri College; Sonada Degree College and Prasannadeb Women's College.*

[76] *Hooghly Mohsin College; Gushkara Mahavidyalaya; Kabi Joydeb Mahavidyalaya; Chandannagar Govt. College; Maynaguri College; Sonada Degree College; Prasannadeb Women's College and Acharya Prafulla Chandra Roy Govt. College.*

Thus, inspection of colleges was a mere formality by the university before affiliation. The views of the HED always prevailed.

2.5.2 Autonomy of Higher Education Institutions

Draft NEP 2019 observed that HEIs in India that have been given autonomy with strong self-governance and have had good leadership, have grown into world-class institutions. Further, providing State universities and affiliated colleges greater autonomy and operational flexibility through enhanced resource support, has also been given priority during Twelfth FYP based on the commitment of the state governments.

As outlined in the National Policy on Education (1986-92), an autonomous college would have the freedom to

- Determine and prescribe its own courses of study and syllabi, and restructure and redesign the courses to suit local needs and prescribe rules for admission in consonance with the reservation policy of the state government;
- Evolve methods of assessment of students' performance, the conduct of examinations and notification of results; and
- Use modern tools of educational technology to achieve higher standards and greater creativity.

It was observed that the concept of autonomous colleges was started in the Eighth FYP whose target at that time was to grant autonomous status to 10 *per cent* of the total colleges. However, after completion of the Twelfth FYP, only seven colleges in West Bengal were awarded autonomous status.

During Exit Conference, Pr. Secretary, Higher Education Department intimated (November 2020) that granting autonomy has been started in some other Universities in the State.

2.5.3 Accreditation and ranking of higher education institutions

As per paragraph 3.3.3 (a) of Report on 'Inclusive and qualitative Expansion in Higher Education' prepared by UGC as a part of Twelfth FYP, the rapid expansion in the number of institutions of higher education and their intake capacity has not been able to ensure simultaneous sustenance of quality.

Further, Higher Education Institutions (HEIs), which have completed six years since their establishment and have had at least two batches of students graduated, are eligible to apply for the process of Assessment and Accreditation of NAAC.

Further as per UGC Regulations, no Higher Educational Institution shall be eligible for financial assistance without having undergone assessment and accreditation.

It was observed that out of the total 65 Government colleges (includes eight Government Engineering Colleges) in the State, 14 (22 *per cent*) had been accredited by NAAC and out of 450 Government-aided colleges, 256 (57 *per cent*) were accredited.

The following charts show the number of colleges awarded with various Grades[77] under these two Universities[78]:

Chart 2.13: Burdwan University (overall Grade A)
Total affiliated college: 62

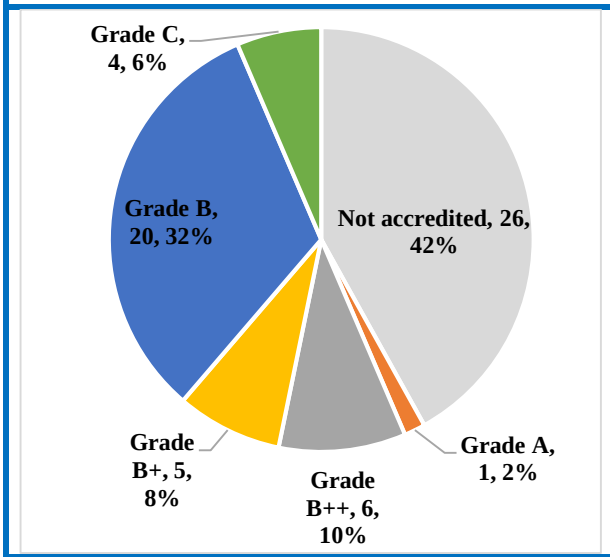
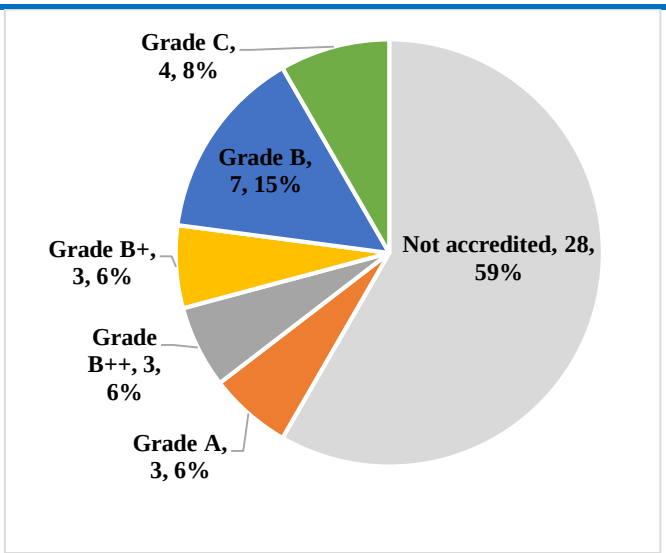


Chart 2.14: North Bengal University (Overall grade A)
Total affiliated College: 48



It may be seen that only a miniscule percentage of colleges under BU (two *per cent* of total) and NBU (six *per cent*) managed to obtain Grade A, indicating substantial scope for improvement in performance. However, among the accredited colleges of these two universities, seven *per cent* got Grade A.

Moreover, it is a matter of more serious concern that 42 *per cent* of colleges under BU and 59 *per cent* of colleges under NBU are yet to get NAAC accreditation. This signifies that not only their performances remain unmonitored and unassessed, but also they are debarred from getting any financial assistance from UGC.

2.5.4 Financial Management

HED provides funds from state budget to State Universities as grant-in-aid for salary of teaching and non-teaching staffers and to Government colleges for meeting their expenditure. Apart from State budget, State Universities and Government and Government-aided Colleges receive assistance from MHRD and University Grant Commission (UGC) under Rashtriya Uchchatar Shiksha Abhiyan (RUSA).

2.5.4.1 Funds under State budget

Position of year-wise funds provided to state Universities and Government colleges during 2014-19 from the State budget is shown in **Table 2.24** below:

[77] *A++: 3.51-4.00; A+: 3.26-3.50; A: 3.01-3.25; B++: 2.76-3.00; B+: 2.51-2.75; B: 2.01-2.50; C: 1.51-2.00; D: <=1.50.*

[78] *BU had been accredited by NAAC as "A" and this was valid upto 2021. 36 colleges out of 62 under the BU had been accredited by NAAC (Grade A: one, Grade B++: six, Grade B+: five, Grade B: 20 and Grade C: four). NBU had been accredited by NAAC as "A" and this was valid upto 2021. 20 out of 48 colleges under NBU had been accredited by NAAC (Grade 'A': three, Grade B++: three, Grade B+: three, Grade B: seven and Grade C: four).*

Table 2.24: Funds from State budget *(₹in crore)*

Year	Budget allocation	Percentage to State Budget	Funds released					Short release in percentage
			To State Universities	To Govt. colleges	To Govt.-aided colleges	Other releases[79]	Total funds released to higher education	
1	2	3	4	5	6	7	8 (4+5+6+7)	9
2014-15	2,602.51	1.50	979.72	161.06	1,108.91	246.78	2,496.47	4.07
2015-16	2,827.62	1.47	950.91	181.13	1,234.30	265.55	2,631.89	6.92
2016-17	3,091.55	1.46	1,053.19	219.00	1,335.87	424.41	3,032.47	1.91
2017-18	3,769.05	1.57	1,107.59	227.72	1,429.70	382.73	3,147.74	16.48
2018-19	3,694.51	1.54	1,216.06	223.84	1,664.04	509.83	3,613.78	2.19

Sources: Budget documents/ information provided by State Government

It can be seen from the table that the State Government did not release entire amount of budget allocation to higher education. Further, the budgetary allocation for higher education remained constant as a percentage of the State Budget (below two *per cent*).

2.5.4.2 Funds under RUSA

RUSA scheme, started in 2013, aims to improve the quality of state universities and colleges and enhance their existing capacities so that they become dynamic, demand-driven, quality conscious, efficient and forward looking and responsive to rapid economic and technological developments. The scheme covers only the government and government-aided state higher education institutions excluding open universities and institutions offering Medical, Agriculture, Veterinary, *etc*. Centre-State funding for this scheme in case of West Bengal is in the ratio of 60:40.

During 2014-19 the HED released ₹ 320.712 crore (Central share (CS): ₹ 192.157 crore plus State share(SS): ₹ 128.528 crore) out of received amount of ₹ 322.841 crore (CS: ₹ 193.436 crore plus SS ₹ 129.405 crore) under RUSA-1.0 [80] and only ₹ 248.713 crore (CS: ₹ 149.23 crore plus SS: ₹ 99.49 crore) out of received amount of ₹ 251.61 crore (CS: ₹ 150.97 crore plus SS: ₹ 100.65 crore) under RUSA-2.0[81] as on February 2020.
BU had received an amount of ₹ 20.00 crore under RUSA of which it had utilized an amount of ₹ 17.53 crore. The amount had been spent on:

- New equipment/ facilities (₹ 5.98 crore);

[79] *Teachers Training, Scholarships, Institutes of Higher Learning, Special Component Plan for Scheduled Castes, Tribal Areas Sub-Plan, Language Development, etc.*

[80] *The salient objectives (RUSA 1.0) were to 1. improve the overall quality of existing state institutions; 2. usher transformative reforms in the state higher education system; 3. ensure academic and examination reforms in the higher educational institutions. 4. enable conversion of some of the universities into research Universities; 5. create opportunities for states to undertake reforms in the affiliation system; 6. ensure adequate availability of quality faculty in all higher educational institutions; 7. create an enabling atmosphere in the higher educational institutions to devote themselves to research and innovations; 8. expand the institutional base in order to achieve enrolment targets; 9. correct regional imbalances in access to higher education and 10. improve equity in higher education.*

[81] *RUSA 2.0, started in 2018, targets to 1.increase the spending of States on higher education as a percentage of GSDP to 2% or above; 2. Ensure all the State Institutions are NAAC Accredited by the end of March 2020 as a part of mandatory quality assurance framework; 3. reduce the student teacher ratio to 15:1 in Institutions by the end of March 2020; 4. increase the National GER to 32% by March 2022; 5. ensure growth of GER with more inclusion of disadvantaged groups (SC/ ST/ Women); 6. Ensure that all the States participate in AISHE and data pertaining to all State institutions is furnished and 7. ensure that the number of colleges affiliated to State Universities reduce to 200.*

- Renovation/upgradation of existing facility (Auditorium at Golapbag) (₹ 6.98 crore); and
- Creation of new facility (International students hostel) (₹ 4.56 crore).

The expenditure on new equipment/ facilities had been spent mainly on purchase of desktop, laptop, LED projectors, UPS, Smart class room (three numbers), language laboratory, purchase of furniture including LAN and electrical connections, purchase of books and subscription of e-journals.

NBU received ₹ 20.00 crore during 2015-16 to 2018-19 under RUSA. Out of ₹ 20.00 crore, ₹ 13.91 crore was incurred during this period. The expenditure was incurred mainly for

- Purchase of books, journals and e-resources (₹ 3.40 crore);
- Smart Class Room (₹ 1.87 crore);
- Construction of Lab of Physics, Chemistry & Geography (₹ 1.90 crore);
- High Performance Computing System (₹ 2.60 crore);
- LAN WiFi with CCTV System (₹ 1.41 crore); and
- Upgradation and renovation of laboratories (₹ 2.08 crore), *etc*.

The NBU authority sent utilisation certificates of ₹ 13.91 crore to Higher Education Department.

2.5.4.3 Other findings relating to maintenance of Accounts and Internal Audit

Maintenance of annual accounts: Both the Universities maintained separate accounts for receipts/ expenditure of each grant/ scheme. Accounts in both the Universities were maintained on cash basis.

Due to this, outstanding liabilities, unearned income, claims/ refunds, payables/ receivables, stock/ inventory and provisions for the employees benefit scheme, *etc*., and income and expenditure under various heads were neither ascertained nor accounted for/ reported in annual accounts.

The dates for submission of accounts to the Government were as follows

Table 2.25: Submission of accounts by the test-checked universities

Year	Date of submission by NBU	Date of submission by BU
2014-15	02.07.2018	18.07.2018
2015-16	06.07.2018	18.07.2018
2016-17	12.11.2018	18.07.2018
2017-18	07.06.2019	31.10.2019
2018-19	**Not yet submitted**	**Not yet submitted**

Source: Information furnished by the respective Universities

It can be seen from the table that the universities were not submitting their annual accounts to the Government in time.

Summary of observations on Governance and Management

State Level Quality Assurance Cell (SLQAC) was supposed to monitor the functioning of Internal Quality Assurance Committee (IQAC) in monitoring the quality parameters/ assessment criteria for NAAC accreditation. SLQAC was not formed in the State. Though IQACs were constituted in both the test-checked universities, there remains ample scope for improvement in their functioning.

The main governing bodies that are responsible for ensuring high quality education were not functioning properly. Issues such as lack of representation of important stakeholder like students and teachers compounded by conduct of meetings without quorum, led to dilution of the idea of consultative administration.

It was observed that the concept of autonomous colleges was started in the Eighth FYP whose target at that time was to grant autonomous status to 10 *per cent* of the total colleges. However, as of date, only seven colleges in the State have been awarded autonomous status.

Further, NAAC accreditation, which was an indicator of quality control, was available only for 22 *per cent* government colleges and 57 *per cent* government-aided colleges in the State. Thus, the quality control activities at all levels of Higher Education remained unmonitored in West Bengal.

This assumes significance in view of the fact that only seven *per cent* of accredited colleges under BU & NBU managed to secure A Grade from NAAC indicating scope for improvement in quality parameters of higher education being imparted in HEIs in the State.

There remains ample scope for improvement in the functioning of Governing Bodies such as Court, EC, *etc*. It was observed that the Government Bodies in the test-checked HEIs did not function with full membership strength and meetings were also held without even the requisite quorum.

Recommendations:

- *In order to increase the number of NAAC accredited institutions, State Level Quality Assurance Cell should be formed and effectively monitor functioning of Internal Quality Assurance Cell of colleges and HEIs should also strengthen their Internal Quality Assurance Cell.*
- *Universities should ensure constitution of all governing bodies and convene their prescribed meetings so that the governance structure works in its full potential towards enhancing quality, equity and access in HEIs.*
- *Test-checked universities should strengthen their affiliation process so that the shortcomings noticed in the inspections of the colleges carried out by the university were rectified before granting permanent affiliation.*

2.6 Conclusion

The higher education scenario in West Bengal is marked by qualitative asymmetry as in terms of College density and Gross Enrollment Ratio, West Bengal remained at the lower end of the ranking table of States and Union Territories (UTs).

Important facilitating mechanism for enhancing employability and employment opportunities of graduating students such as placement cell, career counselling cell, alumni association and employability enhancement programmes were either non-existent or functioned inadequately in most of the test-checked universities and colleges. This was compounded by lack of maintenance of any employment related data or information by most of the test-checked Higher Education Institutions and dependable feedback.

There was insufficient evidence to show whether crucial feedback from stakeholders, inputs from expert groups and reference to curricula of leading universities had been made use of for curriculum improvement. Barring a few cases, none of the test-checked HEIs made any efforts to introduce value added courses in the curriculum, thereby depriving the students of the opportunity of enhancing and diversifying their knowledge. As regards greater academic flexibility and Choice Based Credit System (CBCS), the university level on many such aspects did not sufficiently percolate to the colleges.

Shortage of teachers including non-availability of prescribed qualification among teachers in colleges was another area of concern. Student Teacher Ratio was much more than its prescribed limit of 20:1 in Government aided colleges in Arts stream during 2018-19. Twenty eight *per cent* of teachers in test-checked colleges did not possess prescribed NET (National Eligibility Test) qualification. Efforts towards professional development of teachers was also insufficient as only 22 *per cent* teachers on an average attended professional development programmes in Universities.

As regards quality of research and consultancy, none of the test-checked HEIs were able to produce any tangible outcomes in the form of patents and consultancies during the period 2014-19.

West Bengal is lagging substantially from All India average in terms of setting up of new colleges. Regional asymmetry continues to be a matter of concern. Even after lapse of two years after the end of the Twelfth FYP period (2012-17), the urban/ rural area wise distribution of colleges (rural: 55 *per cent*, urban: 45 *per cent*) falls way short of the desired balance in terms of proportion of population residing in those areas (rural: 73 *per cent*, urban: 27 *per cent*) indicating regional asymmetry.

Unlike the Universities, test-checked colleges, with dearth of computers, were not sufficiently equipped with ICT (Information & Communication Technology) facilities. Many of the affiliated test-checked colleges did not even fulfill the criteria of essential infrastructure for affiliation, which may compromise the learning atmosphere.

NAAC accreditation, which was an indicator of quality control, was available only for 22 *per cent* Government colleges and 57 *per cent* Government aided colleges in the State. Though Internal Quality Assurance Committee (IQAC), which was to monitor the quality parameters/ assessment criteria for NAAC accreditation, were in existence in both the test-checked universities, State Level Quality Assurance Cell (SLQAC), mandated to monitor the functioning of IQACs, was not formed. Thus, the quality control activities at all levels of Higher Education remained unmonitored in West Bengal.

This was compounded by deficiencies in functioning of main governing bodies such as Court, EC, *etc.* of the Universities that are responsible for ensuring high quality education. While there was lack of representation of important stakeholders in those bodies, instances of conduct of meetings without quorum were also observed. Elements of consultative administration was, thus, compromised to that extent.

The aspect of quality control and monitoring calls for attention of the Government/ Universities as only seven *per cent* of accredited colleges under BU and NBU managed to secure A Grade from NAAC.