

Chapter - I

Introduction

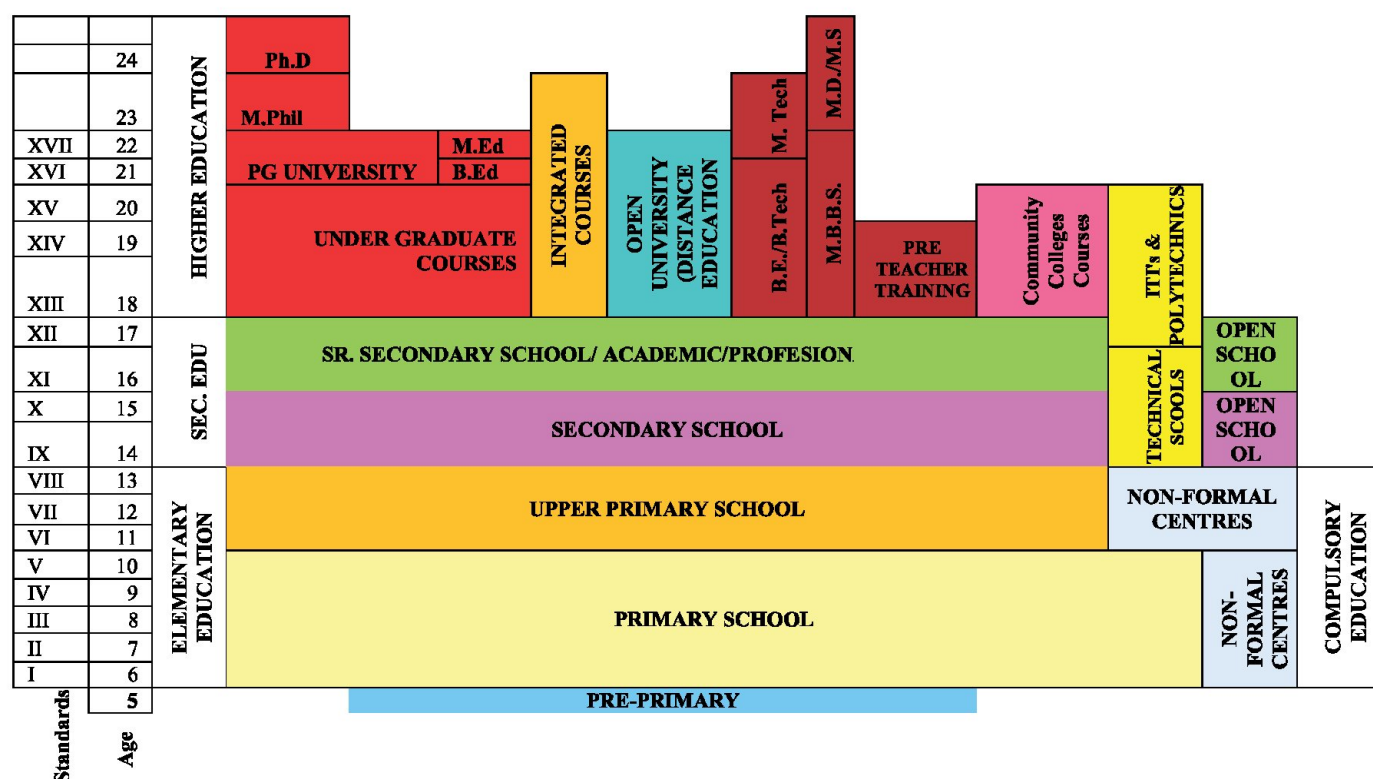
Chapter – I

Introduction

Higher Education in India is currently defined as the education which is obtained after completing 12 years of schooling and is of the duration of at least 3 years. This education may be of the nature of General, Vocational, Professional or Technical education.

As per University Grants Commission (UGC), education, including higher education, in India is currently structured as depicted in **Chart 1.1**. National Education Policy (NEP)-2020 envisages overhauling the existing structure. It states that the extant 10+2 structure in school education will be modified with a new pedagogical and curricular restructuring of 5+3+3+4 covering ages 3-18 {Foundation - 5 years (ages 3-8 years in Anganwadi/preschool/ Balvatika and class 1 and 2), Preparatory - 3 years (ages 8-11 in class 3 to 5), Middle – 3 years (ages 11-14 years in class 6 to 8), and Secondary - 4 years (ages 14-18 in class 9 to 12)}.

Chart 1.1: Structure of Education in India



According to the Twelfth Five Year Plan (FYP) document, higher education in India suffers from two basic concerns. The first being the low Gross Enrolment Ratio² (GER) which was 25.8 *per cent* in 2017-18. The second basic concern is

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

the quality of higher education; i.e. lack of world class higher educational institutions³ in the country. On both these aspects, Rajasthan's higher education system has fared poorly.

The Twelfth FYP further lists certain aspects on which Indian higher education performs inadequately. These include:

- Access to higher education is still less than the minimum international thresholds levels,
- Distribution of institutions is skewed in terms of regional/urban/rural balance,
- Enrolment in public universities is largely concentrated in the conventional disciplines,
- The quality of higher education as well as research conducted in most universities is unsatisfactory,
- A large number of faculty positions are lying vacant.

NEP-2020 also discusses the major problems currently plaguing the Indian higher education. These include:

- Presence of severely fragmented higher educational ecosystem;
- Limited access particularly in socio-economically disadvantaged areas,
- Inadequate mechanisms for merit-based career management and progression of faculty and institutional leaders,
- Lesser emphasis on research at most universities and colleges,
- Less emphasis on the development of cognitive skills and learning outcomes;
- Rigid separation of disciplines, with early specialization and streaming of students into narrow areas of study;
- Limited teacher and institutional autonomy;
- Large affiliating universities resulting in low standards of undergraduate education.

One of the most significant fallouts of these issues has been lack of perceived employability. The India Skills Report 2020⁴ has observed that more than 50 *per cent* of the students graduating from Indian HEIs are unemployable. Further, more than 60 *per cent* of the general stream graduates were not employable.

With the aim of ridding the higher education of problems it currently has, policy documents such as Strategic Framework of Twelfth FYP (2012-17) and the

3 As per QS World Universities ranking 2019, only six Indian higher education institutions (five Indian Institutes of Technology (Mumbai, Delhi, Chennai, Kanpur and Kharagpur) and Indian Institute of Science, Bengaluru) were ranked in first 300 universities. Only University of Delhi, ranked 487, amongst the first 500 general degree universities.

4 India Skills Report is a joint initiative of Wheebox, People Strong and Confederation of Indian Industry in collaboration with United Nations Development Programme (UNDP), All India Council for Technical Education (AICTE) and Association of Indian Universities.

Output Outcomes Budget 2018-19 of Government of India have identified Access, Equity, Quality and Governance as four main areas (**Chart 1.2**) of focus that need attention in higher education.

Chart 1.2: Four main area in higher education

Access	Equity	Quality	Governance
• Availability of sufficient number of institutions	• Equal opportunity to all sections of the society to participate in higher education.	• Improving teaching and research across all institutions	• Essential in order to achieve Access, Equity & Quality

1.1 State Profile: Higher Education

- **Number of HEIs and GER:** According to All India Survey on Higher Education (AISHE) Reports published by Ministry of Human Resources Development, a comparison between Rajasthan and All India in terms of number of HEIs, college density⁵, and GER in the years 2010-11 and 2018-19 is given in **Table 1.1** below.

Table 1.1: Number of HEIs and GER

Year	Total number of universities		Total number of colleges		College density		GER of		Ranking of Rajasthan amongst all states/UTs
	Rajasthan	All India	Rajasthan	All India	Rajasthan	All India	Rajasthan	All India	
2010-11	43	621	2,435	32,974	29	23	18.2	19.4	20
2018-19	83	993	3,156	39,931	35	28	23.0	26.3	23
Increase	93%	60%	30%	21%	6	5	26%	36%	(-) 3

Source: All India Survey on Higher Education Reports

It can be seen that though the percentage increase in number of universities, colleges and college density in Rajasthan was more than All India averages during 2010-11 and 2018-19, the increase in GER was much lower (Rajasthan 26 per cent and All India 36 per cent). Further, the ranking of Rajasthan among all states/Union Territories (UTs) in respect of GER in higher education also worsened gradually from 20 (2010-11) to 23 (2018-19). This points to the fact that in Rajasthan the increase in number of universities and colleges did not have an adequate impact on increasing the GER in the state.

- **Ranking of HEIs:** With regard to the quality of higher education in Rajasthan, only two⁶ private HEIs were placed in the top 100 rank in the

⁵ College Density = Number of colleges per lakh population.

⁶ Birla Institute of Technology & Science, Pilani (39th rank) and Banasthali Vidyapeeth, Bansathali (87th rank).

country as per the ranking framework of the National Institutional Ranking Framework⁷ (NIRF) in 2019.

- **Weaknesses of Higher Education System:** Rajasthan's State Higher Education Plan-2015-22 (SHEP) prepared under *Rashtriya Uchchatar Shiksha Abhiyan* (RUSA) identified several weaknesses in higher education in the State, including inadequate resources for infrastructure development, lack of access to higher education for vast section of socially deprived population, low overall as well as sectional GER, weak curriculum, inadequate teaching aids, lack of personality development programmes and soft skills for students, lack of adequate quality faculty, higher Student-Teacher ratio, lack of linkage with the industry, absence of proper MIS and monitoring and evaluation system, minimal number of NAAC accredited institutions, miniscule number of PhDs, research publications and patents, weak control of institutional heads, etc.

The above facts demonstrate that Rajasthan fared poorly in terms of access, equity, quality and governance of higher education systems, The State also acknowledged these deficiencies. To examine the above concerns, it was decided to conduct a Performance Audit of the 'Outcomes of Higher Education in Rajasthan'.

1.2 Organizational set-up for Higher Education

Higher Education is included in Concurrent List (Seventh Schedule) of the Constitution of India. Accordingly, its planning, implementation and regulation responsibilities are shared by both the Central as well as the State Governments.

The roles and responsibilities of various central, state and universities authorities involved in management of higher education in India are briefly discussed below:

1.2.1 At Central level

- MHRD (renamed Ministry of Education in July 2020) is responsible for the overall development of the basic infrastructure of higher education sector, both in terms of policy and planning. Under a planned development process, it looks after expansion of access and qualitative improvement in the higher education, through world class universities, colleges and other Institutions. It provides funds under RUSA for overall quality improvement of existing government and government aided state HEIs.
- UGC, a statutory body of the Government of India, controls and monitors higher education in India by providing funds and by coordinating, determining and maintaining standards in HEIs.
- The National Assessment and Accreditation Council (NAAC), an autonomous institution of the UGC conducts assessment and accreditation of HEIs. It evaluates standards of quality of the HEIs in terms of educational

⁷ NIRF was approved by MHRD and established in September 2015. It outlines a methodology to rank institutions across the country.

processes and outcomes, curriculum coverage, teaching-learning processes, faculty, research, infrastructure, learning resources, etc.

1.2.2 At state level

In Rajasthan, Department of Higher Education headed by Secretary, is tasked with management of higher education in the state. Commissioner, College Education is responsible for overall work relating to development and expansion of higher education. It controls administrative, educational and financial functions of government colleges and issues no objection certificate to private colleges.

Under RUSA, at the State level, State Higher Education Council headed by Minister of Higher Education is responsible for preparation of perspective plan for planned and coordinated development of higher education in the state. State Project Director, RUSA is responsible for implementation of RUSA.

1.2.3 At the University level

University affiliates government and private colleges for ensuring availability of basic infrastructure, qualified teaching and non-teaching staff and for awarding degree to students of the affiliated colleges. Importantly, University has the mandate to visualize appropriate curricula for particular programmes, revise/update them periodically and ensure that the outcomes of its programmes are defined by its governing bodies.

The Vice Chancellor (VC) who is the ex-officio Chairman of Senate, Syndicate and Academic Council, is the Principal Executive and Academic Officer of the University. The Syndicate is the Chief Executive Body responsible to make, amend and cancel ordinances and it appoints teaching as well as non-teaching staff and defines their duties, emoluments and conditions of services.

1.3 Identifying outcome parameters for Higher Education

Identification of outcomes of higher education and their measurement is a challenging task. In order to understand the outcomes expected by main stakeholders - students, society and Government - Audit interacted extensively with policy makers (MHRD), accreditation agencies (NAAC), regulatory bodies (UGC), experts⁸ and educationists. Based on their inputs, Audit arrived at the broad outcomes of higher education and related parameters to assess them. It emerged that **students desire ‘employability and higher studies’ as the primary outcome of higher education and society wants higher education to**

⁸ Prof. Ved Prakash (Ex-Chairman, UGC), Prof. Dinesh Singh (Ex-Vice Chancellor, Delhi University), Shri Ajay Shah and Ms Ila Patnaik (Professors of National Institute of Public Finance and Policy), Mr. Ramesh K. Arora (Ex-Prof, University of Rajasthan), Shri C.S Rajan (Ex-Chief Secretary, GoR), Shri Ashutosh AT Pednekar (then Special Secretary, Higher Education Department, GoR) and Shri Rajeeva Karandikar (Director, Chennai Mathematical Institute).

contribute towards ‘creation of new knowledge through research’ and ‘diffusion of knowledge through effective teaching/learning processes’. The Government aims to ‘create a high-quality higher education system which is easily accessible to all sections of society’. It also emerged that a robust and strong governance structure was paramount in achieving these outcomes. Hence, Audit identified and evaluated the various ‘parameters required for good governance’.

Audit also realized that achievement of higher education outcomes crucially depended on a number of inputs and outputs required in setting up and managing an effective higher education system. The outcomes, their related inputs and outputs and the relationship between them is depicted in **Chart 1.3**. In order to assess the performance of higher education system in relation to the identified outcomes, **26 key outcomes indicators** as well as **input-output indicators (Appendix-1.1)** were also formulated.

1.4 Audit Objectives

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

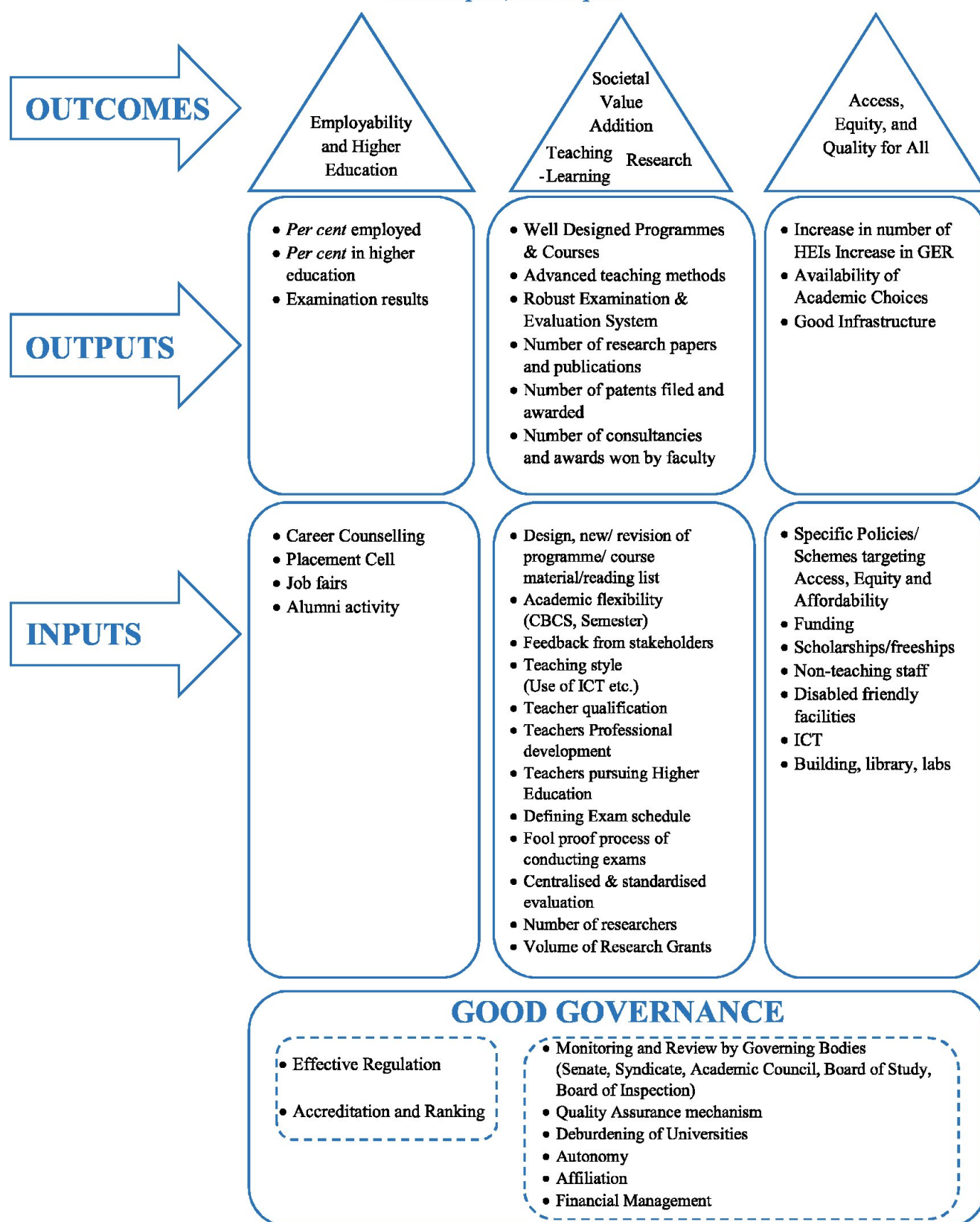
- (i) *The Higher Education system led to increased employability and progress to higher studies for students of higher education institutions.*
- (ii) *The Higher Education system contributed to society through effective teaching learning processes and high quality research.*
- (iii) *Equitable Access to Quality Higher Education was ensured for all, and*
- (iv) *Governance and Management of Higher Education system was adequate and effective.*

1.5 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 FYP
- Guidelines and Manual issued by NAAC.
- Internal Quality Assurance Cell Manual issued by NAAC.
- State Higher Education Plan (2015-22) prepared under RUSA.
- Circulars/orders issued by University Grants Commission, Department of Higher Education/Commissioner, College Education etc.
- Hand books, circulars and guidelines issued by selected Universities.
- Minutes of the meetings of Governing Bodies of selected Universities.
- Annual Accounts of selected Universities.

Chart 1.3: Diagrammatic representation of the relation between outcomes of Higher Education and their related inputs, and outputs



1.6 Scope of Audit and Audit Methodology

1.6.1 Scope of Audit

According to the All India Survey on Higher Education (AISHE) Report 2018-19, there were total 83 universities⁹ and 3,156 colleges in Rajasthan. There were 23 state public universities, of which 10 universities were providing education in general streams (Science/Arts/Commerce).

This performance audit was conducted during September 2019 to February 2020 for the audit period 2014-15 to 2018-19. The audit included examination of aspects such as student progression, access, equity, quality and governance of higher education in state universities and constituent and affiliated colleges. Three¹⁰ (30 per cent) out of 10 state universities providing education in general streams (Science/Arts/Commerce) were selected by simple random sampling method. Three out of five constituent colleges (two from University of Rajasthan (UoR), Jaipur and one from Jai Narain Vyas University (JNVU), Jodhpur) and 60 (10 per cent) out of 602 government/private colleges affiliated to these three selected universities were selected by simple random sampling method. In order to ensure appropriate audit coverage of affiliated colleges, 30 colleges each from government affiliated colleges and private affiliated colleges were selected as detailed in **Table 1.2** below.

Table 1.2: Number of selected affiliated colleges

	Total affiliated colleges	Number of selected affiliated colleges		
		Total colleges	Government colleges	Private colleges
UoR, Jaipur	310	31	15	16
JNVU, Jodhpur	195	19	10	9
GGTU, Banswara	97	10	5	5
Total	602	60	30	30

Further, on the request of Secretary, Higher Education and Commissioner, College Education, additional six government colleges (two each from three selected universities) were also test checked. Thus, total 66 colleges (36 government colleges and 30 private colleges) were test checked (Names of

⁹ Out of 83 universities, 23 were state public universities, 45 state private universities, eight deemed private universities, five institutes of national importance, one state open university and one central university.

¹⁰ Two Universities {University of Rajasthan (UoR), Jaipur and Jai Narain Vyas University (JNVU), Jodhpur} were selected from six old universities which were either NAAC accredited or had applied for accreditation and one university {Govind Guru Tribal University (GGTU), Banswara} was selected from other 4 new universities.

selected colleges are available as part of ([Appendix 1.2](#)). Besides this, records of Commissioner, College Education were also scrutinized.

1.6.2 Audit Methodology

Audit was conducted to assess and evaluate the State's performance in achieving outcomes of higher education. Neither Government of India nor Government of Rajasthan (GoR) has clearly defined such outcomes. In the absence of defined criteria for evaluation and measurement of outcomes in higher education, Audit had to develop its own criteria based on policy documents, provisions of Twelfth FYP, NAAC assessment indicators, higher education experts' inputs and National Institute of Public Finance & Policy's suggestions.

Audit developed quantitative proxy criteria on the basis of scoring system used by NAAC for awarding grades to universities in their accreditation process. Under NAAC's scoring system, the HEI is awarded marks (from 0 to 4) for each of the assessment criteria. Cumulative average based on weightages is calculated to give the final grade (which could be one amongst A++, A+, A, B++, B+, B, C, D). Due to confidentiality reasons, NAAC did not disclose the correlation between performance of an HEI on a particular criteria and the corresponding score it was awarded by NAAC. However, based on the analysis of scores obtained by 22 universities that were graded A++, A+, A, B++, B+, B, C under the NAAC grading system during 2017-18, Audit developed a correlation between scores and performance of each criteria ([Appendix-1.3](#)). This correlation was then used as proxy criteria to assess the performance of each of the selected universities vis a vis chosen indicators. The proxy criteria were discussed at length and explained in detail to the Heads of audited units during the entry conference held in September 2019.

Audit was conducted through physical inspections of sites and evidences were collected through copies of relevant documents, discussion papers and photographs of sites. For evaluation of quality of education, feedback from 2,280 students¹¹ through a student's satisfaction survey was also obtained. Important survey responses have been discussed with relevant audit finding in concerned para of the report. However complete response of student survey have been given in [Appendix 5.3](#). An Entry Conference was held (September 2019) with Secretary, Higher Education Department, Government of Rajasthan and Vice-Chancellors of all three selected universities in which audit objectives, scope of audit, audit methodology and audit criteria including proxy criteria for

11 Student survey of 30 students from each of the selected colleges (equal number of students of IInd/ IIIrd year of UG course and Final year of PG course) and 15 students of Final year of PG course from each selected departments of the universities was done. Students were selected randomly from the students available on the date of inspection of concerned colleges/department.

this performance audit were discussed. Exit Conferences were conducted in June and July 2020 with representatives¹² of selected universities to discuss audit findings, responses and address concerns. The Exit Conference with Secretary, Higher Education Department and Commissioner, College Education could not be held despite being scheduled thrice. However, the GoR submitted its reply to the draft report. (August 2020)

JNVU, Jodhpur stated (October 2020) that since NEP-2020 has been introduced by the Central as well as State Governments in July 2020, audit objections raised in this report would be implemented by the university at the earliest. UoR, Jaipur in its reply (January 2021) accepted the facts and assured to take corrective actions.

1.7 Acknowledgement

Audit acknowledges the co-operation extended by the Higher Education Department; Commissioner of College Education; Vice-Chancellors and concerned officers of UoR, Jaipur; JNVU, Jodhpur and GGTU, Banswara and Principals of selected government colleges and private colleges in conduct of this Performance Audit.

1.8 Structure of the Report

This report is structured in a manner that focusses on the performance of GoR in terms of desired outcomes of higher education and its efforts towards providing the inputs and outputs required for achieving these outcomes. The achievement of these outcomes is dependent on how adequately and effectively interventions of the Government are planned and implemented. Hence, many inputs such as funding and human resources and outputs such as research and capital expenditure, that directly influenced these outcomes were also assessed and commented upon.

Audit findings regarding each of the identified outcomes and related government interventions have been discussed chapter-wise in detail in the succeeding four chapters. Audit findings in respect of 'Employability' and 'Higher Studies' are included in Chapter II, 'Effective Teaching/Learning Processes and High-Quality Research' in Chapter III, 'Equitable Access to Quality Higher Education' in Chapter IV and 'Governance and Management' are included in Chapter V.

12 Vice Chancellor of GGTU, Banswara; representatives of JNVU, Jodhpur and Commissionerate (College Education) GoR and Financial Advisor of UoR, Jaipur.