Chapter-I

Introduction and Audit framework

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1.1 Introduction

Higher education[1] plays a vital role in the country's overall development. The Indian higher education system is the third largest in the world, next to the United States and China. The role of Indian higher education institutes is to provide quality education and research opportunities to empower youth to attain self-sustainability and employability. In line with this, Strategic Framework of 12th Five Year Plan (12th FYP) identified Access, Equity, Quality and Governance as the four main areas of Higher Education that needed attention.

The National Policy on Education 1986 (amended in 1992) was framed to make higher education dynamic. The main features of the policy were consolidation and expansion of institutions, development of autonomous colleges and departments, redesigning courses, training of teachers, strengthening of research and improvement in efficiency.

The National Education Policy (NEP) 2020 also envisions an India centric education system that contributes directly to transforming our nation sustainably into an equitable and vibrant knowledge society, by providing high quality education to all. It states that Higher Education is a critical contributor to sustainable livelihoods and economic development of the nation.

Considering the importance of education, the United Nations' member states jointly committed (September 2015) to the Sustainable Development Goal-4 (SDG-4) which seeks to ensure inclusive and equitable quality education and promotes lifelong learning opportunities for all.

1.2 State Profile: Higher Education

Number of Higher Education Institutes (HEIs) and Gross Enrolment Ratio (GER[2]): All India Survey on Higher Education (AISHE) was established by the Ministry of Human Resource Development (MHRD) for conducting an annual web-based survey portraying the status of higher education in the country. Based on these survey reports, a comparison between Punjab and All

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[1]   Higher Education means the education beyond 10+2 system of study (The Punjab State Higher Education Council Act 2018).

[2]   GER is the ratio of enrolment in higher education to the population in the eligible age group (18-23 years).

India in terms of the number of HEIs, college density[3] and GER in the years 2010-11 and 2019-20 are given in ***Table 1.1***.

Table 1.1: Number of HEIs and GER

Year	Total number of universities		Total number of colleges		College density		GER of		GER Ranking of Punjab amongst all states/UTs
	Punjab	All India	Punjab	All India	Punjab	All India	Punjab	All India	
2010-11	17	621	956	32,974	29	23	19.4	19.4	19
2019-20	32	1,043	1,079	42,343	35	30	28.2	27.1	18
Increase	88 *Per cent*	68 *Per cent*	13 *Per cent*	28 *Per cent*	6	7	45 *Per cent*	40 *Per cent*	(-)1

Source: AISHE Reports

It can be seen that though the percentage increase in number of universities in Punjab was higher than the All India average, the increase in number of colleges was much lower and the increase in college density was at par. Though, increase in the GER in Punjab was higher (Punjab 45 *per cent* and All India 40 *per cent*) than All India average, ranking of the State among all States/Union Territories (UTs) in respect of GER in higher education fell from 19 (2010-11) to 18 (2019-20). This points to the fact that in Punjab the increase in number of universities and colleges did not have an adequate impact on GER ranking.

- ***Ranking of HEIs:*** Only three[4] Government HEIs were placed in the top 100 rank in the country as per the ranking framework of the National Institutional Ranking Framework[5] (NIRF) in 2020.

- ***Weaknesses in Higher Education System:*** Punjab's State Higher Education Plan 2014-2019, prepared under Rashtriya Uchchatar Shiksha Abhiyan (RUSA), identified several weaknesses in higher education in the State, including inadequate resources for infrastructure development and for development of soft skills and communication skills, lack of access to higher education for vast sections of socially deprived population, lack of adequate quality faculty, higher Student-Teacher ratio, Lack of pre-placement training, lack of linkage with the industry, absence of proper Management Information System and monitoring and evaluation system, minimal number of National Assessment and Accreditation Council (NAAC) accredited institutions and of research publications and patents.

The above facts demonstrate that Punjab is lacking 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

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3 College Density = Number of colleges per lakh population.
4 Guru Nanak Dev University, Amritsar; (51st Rank); (ii) Punjabi University, Patiala (64th Rank); and (iii) Punjab University, Chandigarh (26th Rank).
5 NIRF was approved by MHRD and established in September 2015. It outlines a methodology to rank institutions across the country.

decided to conduct a Performance Audit on 'Outcomes of Higher Education in Punjab'.

1.3 Organisational set-up for Higher Education

Higher Education is included in Concurrent List (Seventh Schedule) of the Constitution of India. Accordingly, the planning, implementation and regulation are shared by both the Central and the State Governments.
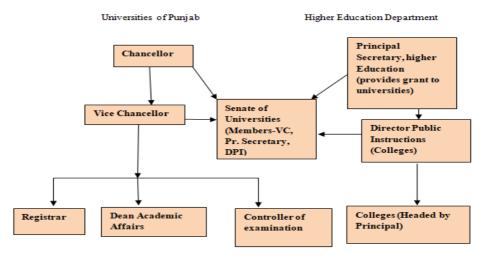
The roles and responsibilities of various Central, State and universities authorities involved in management of higher education in India are briefly discussed below:

1.3.1 At Central level

• Ministry of Human Resources Development (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 higher education. It provides funds under RUSA for overall quality improvement of existing Government and Government-aided State HEIs.

• University Grants Commission (UGC), a statutory body of the Government of India (GoI), controls and monitors higher education in India by providing funds and by coordinating, setting and maintaining standards in HEIs.

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

1.3.2 At State level

The organisational set-up in Universities as well as colleges located in Punjab is as under:

At State Government level, Department of Higher Education (Department) headed by Principal Secretary, deals with affairs of Universities and Colleges providing Higher Education in general streams. The Principal Secretary is assisted by Secretary and Director Public Instructions (Colleges) (DPI) who is responsible for 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.

1.3.3   At the University level

The Vice Chancellor (VC), an ex-officio Chairman of Senate, Syndicate and Academic Council, is the Principal Executive and Academic Officer of the University. The VC is assisted by Registrar, Controller of Finance and Financial Adviser, Controller of Examinations, Dean of Faculty, etc. The Senate is the highest governing body (members include Secretary, Higher Education, DPI) and the Syndicate is the chief executive body of the University. The University affiliates Government and private colleges.

1.4   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 referred to reports of 12th FYP, NAAC, UGC and there was interaction with educationists. Thus, Audit arrived at the broad expected 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 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 realised 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 as depicted in a *Chart 1.1* was adopted on the same pattern as included in the Report of the Comptroller and Auditor General of India on Performance Audit of Outcomes of Higher Education in Rajasthan (Report No. 1 of the year 2021). In order to assess the performance of higher education system in relation to the identified outcomes, 30 key outcomes indicators as well as input-output indicators (*Appendix 1.1*) were formulated.
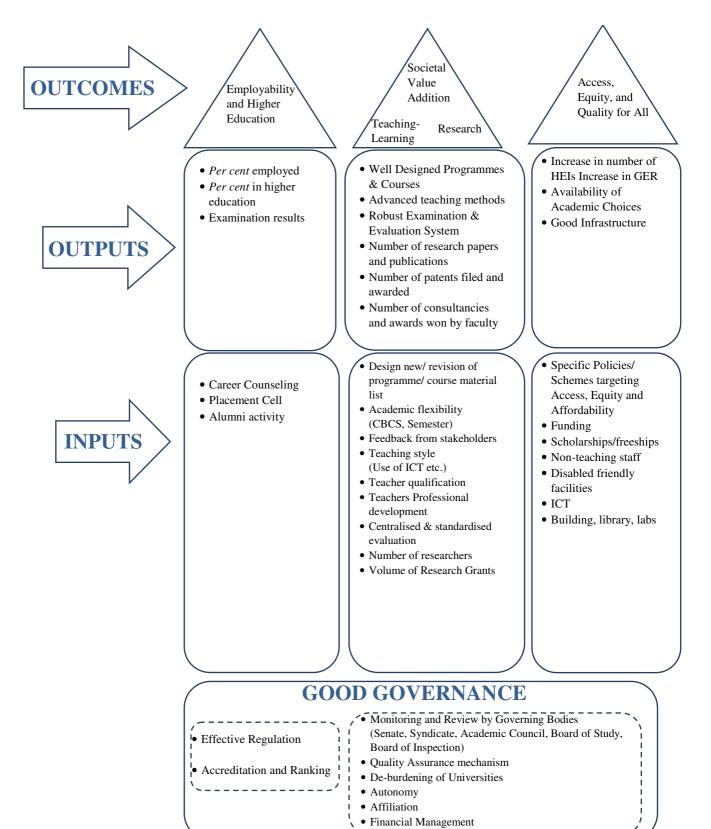
Chart 1.1: Outcomes of Higher Education and related inputs, and outputs

OUTCOMES

Employability and Higher Education

Societal Value Addition

Teaching-Learning   Research

Access, Equity, and Quality for All

OUTPUTS

- *Per cent* employed
- *Per cent* in higher education
- Examination results

- Well Designed Programmes & Courses
- Advanced teaching methods
- Robust Examination & Evaluation System
- Number of research papers and publications
- Number of patents filed and awarded
- Number of consultancies and awards won by faculty

- Increase in number of HEIs Increase in GER
- Availability of Academic Choices
- Good Infrastructure

INPUTS

- Career Counseling
- Placement Cell
- Alumni activity

- Design new/ revision of programme/ course material list
- Academic flexibility (CBCS, Semester)
- Feedback from stakeholders
- Teaching style (Use of ICT etc.)
- Teacher qualification
- Teachers Professional development
- Centralised & standardised evaluation
- Number of researchers
- Volume of Research Grants

- Specific Policies/ Schemes targeting Access, Equity and Affordability
- Funding
- Scholarships/freeships
- Non-teaching staff
- Disabled friendly facilities
- ICT
- Building, library, labs

GOOD GOVERNANCE

- Effective Regulation

- Accreditation and Ranking

- Monitoring and Review by Governing Bodies (Senate, Syndicate, Academic Council, Board of Study, Board of Inspection)
- Quality Assurance mechanism
- De-burdening of Universities
- Autonomy
- Affiliation
- Financial Management

1.5 Audit framework

The Performance Audit (PA) was conducted by framing of audit objectives on the basis of outcome indicators and criteria.

1.5.1 Audit Objectives

The objectives of the PA were to assess whether:

(i) State Government/ Institutions ensured accessibility, equity and affordability in Higher Education.

(ii) quality of Higher Education was ensured.

(iii) an effective system for Governance and Management existed.

(iv) the Department was prepared for implementation of NEP 2020.

1.5.2 Audit Criteria

To evaluate the outcomes of Higher Education of above mentioned audit objectives, the criteria and indicators were sourced from the following documents:

- Inclusive & Qualitative expansion of Higher Education- under 12th FYP (2012-2017)
- Guidelines/Acts/Regulations issued by University Grants Commission, Guidelines issued under Rashtriya Uchchtar Shiksha Abhiyan
- Guidelines and Manual issued by National Assessment and Accreditation Council University hand books, circulars and guidelines
- Minutes of the meetings of the Senate, Syndicate, Academic Council, Board of Inspection, Finance Committee, Annual Accounts of the Universities.
- Punjab Higher Education Council Act, 2018.
- Annual Report of Higher Education Department along with other documents.

1.5.3 Scope of Audit and Audit Methodology

1.5.3.1 Scope of Audit

According to the AISHE Report 2019-20, there were total 32 universities[6] and 1,079 colleges in Punjab. There were 15 state public universities, of which three universities were providing education in general streams (Science/Arts/Commerce).
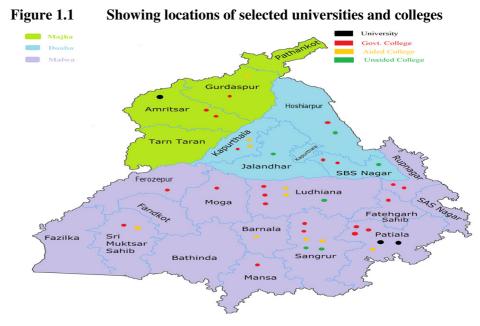
This PA was conducted during August 2020 to March 2021 for the period 2015-16 to 2019-20. The audit included examination of aspects such as

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[6] Out of 32 universities, there was one Central University, five Institutes of National importance, nine state public universities, 15 state private universities, one deemed university-Government and one deemed university-Private.

student progression, access, equity, quality, employability, progression to higher education and governance of higher education in state universities, and constituent and affiliated colleges. Two[7] (67 *per cent*) out of three state universities providing education in general streams (Science/Arts/Commerce) and Rajiv Gandhi National University of Law (RGNUL) were selected by simple random sampling method. 38 colleges (11 *per cent*) out of 361 affiliated colleges[8], *(Appendix 1.2)* imparting Higher Education in Punjab pertaining to general streams[9] were selected (***Figure 1.1***) by adopting systematic sampling method.

Records pertaining to the years 2015-2020 in the offices of DPI, Government of Punjab (GoP) and State Project Director, RUSA were test checked.

In PU, Patiala and GNDU, Amritsar, 21[10] and 11 departments[11] were selected respectively, however, in RGNUL, Patiala records of the whole university were checked.

Figure 1.1   Showing locations of selected universities and colleges

1.5.3.2   *Audit methodology*

Audit was conducted to assess and evaluate the State's performance in achieving outcomes of higher education. Neither GoI nor GoP has clearly

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7   (i) Punjabi University (PU), Patiala; and (ii) Guru Nanak Dev University (GNDU), Amritsar.
8   (i) Panjab University, Chandigarh (105); (ii) Punjabi University, Patiala (159); and (iii) Guru Nanak Dev University, Amritsar (97).
9   Science, Commerce, Arts and Law excluding B.Ed. and B.P.Ed.
10   (i) Human Genetics; (ii) Zoology and Environmental Sciences; (iii) Commerce; (iv) Hindi; (v) Economics; (vi) Mathematics; (vii) Physics; (viii) Political Science; (ix) English; (x) Chemistry; (xi) Biotechnology; (xii) Sociology and Social Anthropology; (xiii) History; (xiv) Psychology; (xv) School of Social Sciences; (xvi) Law; (xvii) Persian; (xviii) Urdu and Arabic, (xix) Journalism and Mass Communication, Sanskrit and Pali; (xx) Music; and (xxi) Religious Studies.
11   (i) Biotechnology; (ii) Chemistry; (iii) Economics; (iv) Financial Studies (Commerce); (v) Hindi; (vi) Human Genetics; (vii) Law; (viii) Music; (ix) Physics; (x) Sanskrit, Pali & Prakrit; and (xi) Social Sciences.

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 NAAC assessment indicators.

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. However, based on the analysis of scores obtained by 18 universities *(Appendix 1.3)* that were graded A++, A+, A, B++, B+, B, C under the NAAC grading system during 2018-19, Audit developed a correlation between scores and performance of each criteria *(Appendix 1.4)*. This correlation was then used as proxy criteria to assess the performance of each of the selected universities vis-à-vis chosen indicators. The proxy criteria were discussed during the entry conference held in November 2020. Besides NAAC indicators, recommendations of 12th FYP and UGC guidelines were also used as benchmark for assessment.

For evaluation of quality of education, feedback from 2422 students[12] (Universities: 816 Students and Colleges: 1,606 Students) were to be surveyed. However, due to COVID-19 pandemic, the students were not attending the classes, hence, the online survey was conducted instead of physical survey. Out of 2,422 students, the responses of 1,988 students (Universities: 456 Students and Colleges: 1,532 Students) were received. Important survey responses have been discussed under relevant audit finding. However, complete responses of student survey have been given in *Appendix 1.5*.

An Entry Conference was held (November 2020) with the Special Secretary of the Department and Registrar/other representatives of three selected Universities to discuss audit objectives, scope of audit, audit methodology, audit criteria and outcome indicators for this performance audit besides seeking concern, if any, of the Department requiring examination by audit. Exit Conference was held (August 2021) with the DPI, Colleges, and representatives of the selected universities. The replies of the Department as well as Universities given in exit conference have been incorporated in the report.

Performance Audit on "Working of Guru Nanak Dev University" printed as paragraph 2.2 in CAG's Audit Report on Social, General and Economic Sectors (Non-PSUs) for the year ended 31 March 2015-Government of Punjab, was discussed in the Public Accounts Committee (PAC) meetings

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[12] 272 students in each university = 816 and 10 *per cent* of total strength (subject to minimum 20 and maximum 50 students per college = 1,606.

held during June and July 2020. Proceedings of these meetings were also examined and incorporated in PA, wherever applicable.

1.5.4 Synchronisation of audit findings

The audit findings, conclusions and recommendations relating to audit objectives have been reported in four distinct chapters, *viz.* Chapter II, III, IV and V, to facilitate easy comprehension and follow up.

1.5.5 Acknowledgement

During PA, the co-operation extended by the Department of Higher Education; DPI (Colleges); State Project Director, RUSA; Vice-Chancellors and concerned officers of Punjabi University; Patiala, Guru Nanak Dev University, Amritsar; Rajiv Gandhi National University of Law, Patiala; and Principals of selected Government, aided and unaided colleges is acknowledged.