

## **CHAPTER 7**

### **MAJOR ISSUES, BRIEF SUMMARY AND KEY RECOMMENDATIONS**

This chapter discusses the major issues which emerge from the analysis, briefly sums up the principal findings of the study and provide key recommendations for better outcome in higher education sector in Bihar. An attempt has been made to explain the basic issues and concerns related to higher education in the state in the Section 1 of the Chapter. Issues related to accessibility, equity, relevance and public spending are also discussed in detail in various subsections. Section 2 presents a brief summary of dissertation. It describes the importance of higher education for human capital formation, growth of higher education both the general and professional, comparative picture of quantity and quality of higher education, pattern of public spending and reasons for out migration of students from Bihar. Keeping in mind the critical issues pertaining to higher education and based on the insights provided by the discussions in previous chapters, key recommendations for the better outcome in higher education are outlined in last section i.e. section 3 of the chapter.

#### **7.1 Major Issues**

The progress made in higher education during last six decades has given us clear indication that higher education has expanded significantly in Bihar. During 1955-56, the number of universities was only 2, colleges around 50 and the total enrolment was less than 60,000. By the end of 2009-10, the number of universities has increased to 18, number of colleges to 817, and

an estimated enrolment of more than 9 lakh students. Though the institutional capacity has expanded manifold, but this expansion is chaotic and unplanned. Moreover the quantitative expansion is biased towards colleges for general education only as the professional colleges have shown very little growth during the period. During 1955-56 to 2009-10, the number of agriculture college has increased from merely 2 to 3, engineering colleges from 5 to 10, medical colleges from 7 to 37, colleges for teacher training from 5 to 33 and poly-technique institutions has increased from 3 to 17. Gross Enrollment Ratio is amongst the lowest in the country and there exists wide intra-state disparity. There is a mismatch between demand and supply of educational institutions. The higher education system in the state is unable to provide a sufficient volume of skilled human power to cater to the demands of the economy. Apart from the limited coverage, the existing institutions are in extremely bad shape due to lack of academic and physical infrastructure, modern equipment, irrelevant and outdated syllabus with no linkages with industry and absence of qualified teachers. The expenditure pattern is biased and the state is spending more to meet only current expenses than on creation of infrastructure. These things clearly indicate about the underlying complications in the system and it is imperative to have a closer look on these complications associated with the system.

Higher education system in Bihar is in extremely bad shape. The problem associated with higher education system in the state is multi-dimensional. There are number of issues which need to be identified in order to evolve strategies to solve the underlying problem. The study focuses on some of the major issues pertaining to access, equity, quality and relevance, and management of public spending. These issues are discussed in the subsequent sections.

### **7.1.1 Issues Related to Accessibility**

Article 26 of the Universal Declaration of Human Rights 1948 clearly states that “Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit.” The level of accessibility of higher education is determined by the size of institutional capacity, distribution of higher educational institution and growth of enrollment in higher education in the State vis-à-vis other states of the country. However, higher education is not easily accessible to all in the State. Some of the issues related to accessibility are:

**(i) Stagnated Growth of Institutions:** There appears to be a correlation between the number of institutions for professional education in the State and its economic and industrial development. More number of qualified manpower is a necessary and sufficient condition for sustainable growth of the economy. Growth of qualified manpower in turn depends upon the growth of higher level of institutions in the state. Unfortunately, the growth of higher educational institution, particularly institutions for professional education, is almost stagnant in the state. During 1955-56 to 2009-10, the number of agriculture college has increased from merely 2 to 3, engineering colleges from 5 to 10, medical colleges from 7 to 37, colleges for teacher training from 5 to 33 and polytechnic institutions has increased from 3 to 17. Population in the state has expanded rapidly during this period, resulting into increase in demand for higher education. However, the growth in higher educational institution is not in line with population growth. Very slow pace of growth of higher particularly technical education has resulted into a mismatch between demand and supply. This has also adversely affected the

intake capacity of universities and colleges in the state. Bihar shares 8 per cent of total population of the country but it shares only about 0.35 per cent of engineering colleges, 1.78 per cent of medical colleges, 0.89 per cent of poly-techniques and 0.8 per cent of Management colleges of the country.

**(ii) Inadequate number of General and Professional Institutions:**

Stagnated growth of higher educational institutions over a period of time has affected its required number in the state. The number of Colleges for higher and technical educations is highly inadequate as compared to other states in the country. In terms of availability of colleges per lakh population i.e. College-population Index, Bihar's position is amongst the lowest in the country with only 5.5 Colleges per lakh population. The situation is more alarming with regard to the discipline-wise break-up of institution. There are 0.4 colleges per lakh population for medical education and only 0.1 colleges per lakh population for both engineering and agricultural education. Table 7.1 presents the supply deficit of different categories of institutions in the state. State needs 1135 more colleges to cater to the demand of its growing young population. 373 more colleges are required in general stream. The situation is more alarming in case of technical education and polytechnic. State is facing deficit of 236 engineering colleges, 139 medical colleges, 253 educational or teacher training colleges and 146 polytechnics. Due to lesser availability of choices, large numbers of students are migrating to other states in search for admission into technical and professional courses (Bhushan, 2011).

**Table 7.1**  
**Supply Deficit of Higher Educational Institutions in Bihar**

<i>Colleges</i>	<i>General</i>	<i>Engineering</i>	<i>Medical</i>	<i>Education</i>	<i>Others</i>	<i>Total</i>	<i>Poly-technic</i>
Required	1190	246	176	286	267	2166	163
Available	817	10	37	33	134	1031	17
Deficit	373	236	139	253	133	1135	146

**Source:** Sudhanshu Bhushan and Preet Rustagi, Education in Bihar, 2011.

**(iii) Low Gross Enrollment Ratio:** Inadequacy of institutional capacity can also be seen in terms of gross enrollment ratio in higher education in the state. The Gross Enrollment Ratio in these districts is also very low which clearly indicates high degree of correlation between GER and availability of colleges. The GER in higher education for Bihar is 11.0 per cent which is much below the national average of 15.0 per cent, the GER. GER in higher education for females is also very low (7.5) in the State. The lower enrollment ratio is resulted from lesser availability of educational infrastructure and facilities in the State (Table 7.2).

**Table 7.2**  
**State-wise Distribution of Districts based on GER (2001)**

<i>Major States</i>	<i>Total District , 2001</i>	<i>GER, 2001</i>	<i>Districts with GER below 12.4</i>	<i>Districts with GER above 12.4</i>
Andhra Pradesh	23	14.19	11	12
Assam	23	15.28	12	11
Bihar	37	11.95	25	12
Gujarat	25	8.94	20	5
Haryana	19	12.83	7	12
Jammu & Kashmir	14	12.58	11	3
Karnataka	27	12.04	20	7
Kerala	14	17.6	4	10

Madhya Pradesh	45	8.92	39	6
Maharashtra	35	17.33	7	28
Odisha	30	13.66	18	12
Punjab	16	11.12	13	3
Rajasthan	33	8.23	30	3
Tamil Nadu	30	9.5	26	4
Uttar Pradesh	70	12.57	41	29
West Bengal	18	8.63	17	1
India	593	12.4	374	219

**Source:** Report of the UGC Committee to Prepare Detailed Project Report (DPR) for Establishing the Proposed Model Colleges in Low Gross Enrolment Ratio (GER) Districts in India, 2007.

**(iv) Large number of educationally backward districts:** Another important indicator of educational accessibility is identification of Educationally Backward Districts (EBD). The UGC adopted overall literacy rates as the single indicator for disbursement of funds under the educationally backward areas scheme during the Tenth Five Year Plan. Districts that had overall literacy rates below the national average (i.e. 65.4 per cent) were identified as educationally backward. Accordingly, the number of such districts, as per the Census 2001, was 294 for the country as a whole. But, for Eleventh Five Year Plan, literacy rates are substituted by GER and C-PI for identification of these districts, as these two clearly indicates the current status. In the present context, EBDs are those, whose GER is less than the national average of 12.4. In terms of C-PI, EBD are that whose C-PI is below the national average of 12, which means districts with less than 12 colleges per lakh population. It is an important indicator which shows the relative performance of different states in terms of enrollment and availability of institutions. According to the study conducted by UGC in 2001-02, 374 out of 593 districts in India had GER less than 12.4. Out of these 374 Educationally Backward Districts, 200 suffered from

various types of remoteness and inaccessibility due to geographical features. Bihar is once again portraying a gloomy picture, where 25 out of 37 districts are observed as educationally backward. On closely examine the distribution of districts across states by the categories of C-PI, it is found that 352 out of 593 had C-PI lower than the national average. Once again, states like Maharashtra, Karnataka and Andhra Pradesh had portrayed a better picture. In Bihar, 32 out of 37 districts had been identified as educationally backward districts. It is matter of great concern that in terms of GER, 68 per cent of the districts and in terms of C-PI, 86 per cent of the districts are educationally backward in the State (Table 7.3).

**Table 7.3**  
**State-wise Distribution of Districts by CPI and GER**

<i>Major States</i>	<i>Total Number of Districts, 2001</i>	<i>No. of Districts with CPI below National Average (2002)</i>	<i>No. of Districts with GER below National Average (2001)</i>
Andhra Pradesh	23	7	9
Assam	23	16	10
Bihar	37	32	25
Gujarat	25	15	20
Haryana	19	13	7
Jammu & Kashmir	14	12	10
Karnataka	27	5	20
Kerala	14	10	4
Madhya Pradesh	45	28	39
Maharashtra	35	5	6
Odisha	30	9	18
Punjab	16	12	12
Rajasthan	33	25	30

Tamil Nadu	30	22	26
Uttar Pradesh	70	50	38
West Bengal	18	17	16
India	593	352	358

**Source:** Higher Education in India, Issues related to Expansion, Inclusiveness, quality and Finance, University Grants Commission, 2008.

### 7.2.2 Issues Related to Equity

Apart from limited coverage of existing institution and thus lower accessibility of higher education, there exists wide inequality in terms of enrollment across segments of the society. Equity can be determined in terms of enrollment across sex, caste, region, urban and rural areas and states. It has been observed that male-female, Inter-caste, rural-urban and poor-non poor disparities in enrollment are very prominent in the state. With such a high disparity, inclusive education has remained an elusive target.

**(i) Lesser participation of Women:** Participation of women in higher education is relatively low as compared to participation of their male counterparts. The low participation can be evident from lower gross enrollment ratio across major states in India. In India, GER in higher education for female is 12.0 per cent and that of male is 17.1 per cent. The disparity is more pronounced in case of socially disadvantaged group. GER for females in SC category is merely 9.0 per cent and ST Category is 7.5 per cent. GER figures for their male counterparts are 13.0 and 13.1 respectively. Females (in the age group 18-23 years) in Bihar are also way behind their male counterparts in terms of Gross Enrollment Ratio in higher education. GER for girls is just 7.5 percent as compared with 14.1 percent for boys. It is also much below the GER at all India level. The GER for females belonging to lower caste groups is even lower 2.5 for SC females and 7.7 for ST

females. State also ranked third last in the country in terms of gender parity index in higher education (0.53). Gender parity index for SC category is 0.34 and ST Category is 0.41. Lesser participation women in higher education in the state may be due to lesser availability of women's colleges in the state. Bihar has only 2.1 colleges per lakh women population (Table 7.4).

**Table 7.4**  
**State wise Relative Position of Females in Higher education system**

	CPI (Women Colleges), 2002	GER (Female),2009			Gender Parity Index, 2009		
		All	SC	ST	All	SC	ST
Andhra Pradesh	4.40	12.30	9.10	8.50	0.58	0.51	0.32
Bihar	2.10	7.50	2.50	7.70	0.53	0.34	0.41
Gujarat	2.80	13.20	14.30	6.30	0.72	0.66	0.58
Karnataka	5.20	16.30	13.90	11.00	0.82	0.62	0.59
Kerala	1.80	14.20	16.70	14.20	1.18	1.28	1.05
Madhya Pradesh	2.80	13.10	8.30	3.80	0.79	0.75	0.57
Maharashtra	2.70	16.90	22.80	3.70	0.67	0.73	0.39
Odisha	3.70	5.90	2.30	1.20	0.36	0.40	0.24
Punjab	6.40	10.90	4.90	-	1.03	0.94	-
Rajasthan	4.00	7.40	4.90	5.50	0.64	0.55	0.49
Tamil Nadu	4.00	17.20	11.20	8.90	0.83	0.81	0.75
Uttar Pradesh	2.50	9.50	7.80	46.00	0.79	0.74	0.59
West Bengal	1.40	10.20	6.60	13.00	0.75	0.69	0.67
India	3.30	12.70	9.00	7.50	0.70	0.70	0.60

**Source:** (i) Higher Education in India: Issues related Expansion, Inclusiveness, Quality and Finance, UGC, 2008. (ii) Statistics of Higher and Technical Education, 2009-10, Ministry of Human Resource Development.

(ii) **Disparity against socially disadvantaged group:** For several historical and cultural reasons, caste or Varna system has been an important social construct in India. Influencing individual and collective life in myriad of ways, it has also had a bearing on the acquisition of education including of higher education (UGC, 2011). Table 7.5 presents the GER amongst social groups across major states in India. During 2009, GER for Schedule Caste population was 11.1 and GER for Schedule Tribe population was 10.3 at all India level. During the same period, GER in Bihar was 11.0 percent; Scheduled Castes have GER of 5.0 percent. The situation of Scheduled Tribes is relatively good with GER of 13.4 percent.

**Table 7.5**  
**GER among Social Groups, 2009**

<b>States</b>	<b>All Categories</b>	<b>SC</b>	<b>ST</b>
Andhra Pradesh	16.9	13.6	17.1
Bihar	11.0	5.0	13.4
Gujarat	15.9	18.2	8.5
Karnataka	18.1	18.4	14.9
Kerala	13.1	14.9	13.9
Madhya Pradesh	14.9	9.7	5.2
Maharashtra	21.4	27.3	6.5
Odisha	11.3	4.1	3.1
Punjab	10.8	5.1	-
Rajasthan	9.6	7.1	8.4
Tamil Nadu	19.0	12.5	10.3
Uttar Pradesh	10.9	9.2	62.2
West Bengal	11.9	8.2	16.2
<b>India</b>	15.0	11.1	10.3

**Source:** Statistics of Higher and Technical Education, 2009-10, Ministry of Human Resource Development.

(iii) **Rural-Urban Disparity:** It is quite obvious that due to more opportunities in urban areas, people residing in urban areas are better off than those in rural areas. It also holds true in case of rural urban enrollment pattern. A study of Census data of Gross Enrollment Ratio in higher education in 2001 showed that there exists wide rural-urban disparity in terms of GER at all India level and also across major states. At all India level, during 2001 GER in rural area was merely 8.1 percent, as compared with 21.8 percent in urban areas. A closer look at the state-wise rural-urban pattern of GER exhibits similar picture. Bihar, Madhya Pradesh, Orissa, Rajasthan and West Bengal continue to occupy low positions. Since, more than 85 percent of the total population in Bihar lives in villages, it is pertinent to look into the rural urban disparity in attainment of higher education. In Bihar, GER in rural area was 8.5 per cent and urban area was 36.3 per cent. It is quite unfortunate that higher education is not easily accessible to majority of the population in the state.

**Table 7.6**  
**GER by Area (all categories), Census 2001**

<b>States</b>	<b>Total</b>	<b>Rural</b>	<b>Urban</b>
Andhra Pradesh	14.2	8.5	27.0
Bihar	11.9	8.5	36.3
Gujarat	8.9	5.1	14.6
Karnataka	12.0	6.9	20.4
Kerala	17.6	15.9	22.6
Madhya Pradesh	8.9	3.6	21.3
Maharashtra	17.3	12.0	23.3
Odisha	13.7	10.2	30.0
Punjab	11.1	6.6	19.4
Rajasthan	8.2	4.6	18.1
Tamil Nadu	9.5	5.6	14.2

Uttar Pradesh	12.6	9.0	23.5
West Bengal	8.6	5.1	17.1
India	12.4	8.1	21.8

**Source:** Higher Education in India: Issues related Expansion, Inclusiveness, Quality and Finance, UGC, 2008.

**(iv) Wide inter-district disparity:** There exists wide intra-state disparity in terms of presence of higher and professional education institutions in the State. The distribution of these institutions is highly skewed with most of the existing institutions are concentrated in only few districts of the state. Table 7.7 presents the distribution of districts in Bihar by categories of C-PI and GER, which clearly shows the magnitude of inter-district disparities in the availability of colleges and enrollment for higher education in the state. Interestingly, 13 districts in the State had reported less than 4 colleges per lakh population during this period. Another, 14 districts are having 4-8 colleges per lakh population. Due to availability of lesser number of colleges per lakh population, 32 out of 37 districts had been identified as educationally backward districts. There is high degree of correlation between the Gross Enrollment Ratio (GER) and availability of Institutions. Availability of educational facilities and infrastructure supports such as hostels, laboratories, libraries, and teachers play the quintessential role in promoting educational enrolment at all levels of education. It was observed that a large number of districts that have been identified as the EBDs were also deficient in terms of availability of colleges. (UGC, 2008). Study of inter-district scenario of Bihar also suggests that most of the districts with lesser number of colleges are also having lower GER in higher education. 25 out of 37 districts in the state have GER less than the National Average. There are 15 districts in the state in which GER is less than 9 (Table 7.7).

**Table 7.7**  
**Distribution of Districts in Bihar based on**  
**Categories of C-PI and GER**

<i>C-PI based Distribution,2002</i>		<i>GER based Distribution,2001</i>	
<i>Category A (&lt;1.0)</i>	1	<i>Category A (&lt;3.0)</i>	0
<i>Category B (1.1 - 4.0)</i>	12	<i>Category B (3.1 - 6.0)</i>	3
<i>Category C (4.1 - 8.0)</i>	14	<i>Category C (6.1 - 9.0)</i>	12
<i>Category D (&lt;8.1 - 12.0)</i>	5	<i>Category D (9.0 - 12.4)</i>	10
<i>Category E (&gt; 12.0)</i>	5	<i>Category E (&gt; 12.4)</i>	12

**Source:** Higher Education in India: Issues Related to Expansion, Inclusiveness, Quality and Finance, UGC, 2008.

### **7.2.3 Issues Related to Quality and relevance**

The quality of higher education is matter of great concern which has bearing on the overall intellectual capacity of the students of Bihar. The products coming out of colleges from Bihar, though intelligent, lacks market oriented skills and are sub-standard in comparison to students of other states. Some of the quality related issues are discussed in the present section.

**(i) Accreditation Status:** Accreditation in higher education pertains to determine the quality of an institution. The criteria on which institutions are judged typically involve expected student achievement, quality of curriculum, faculty, academic support and services for students and financial capacity. In India, National Assessment and Accreditation Council (NAAC)

is set up to accredit institutions of higher education. NAAC has been set up to make assessment of academic quality of higher educational institutions, programmes conducted therein and their infrastructure. NAAC has so far completed accreditation of only 161 out of 467 universities and 4,371 out of 25,951 colleges. However, very few institutions in Bihar have applied for accreditation by NAAC. Only 3 out of 17 universities and 39 out of 817 colleges are accredited by NAAC in the State (Table 7.8).

**Table 7.8**  
**Status of Institutional Accreditation in States\***

<i>States</i>	<i>Universities Accredited</i>	<i>Colleges Accredited</i>
Andhra Pradesh	14	281
Bihar	3	39
Chhattisgarh	2	43
Goa	1	17
Gujarat	9	395
Haryana	3	186
Himachal Pradesh	1	28
Jammu & Kashmir	2	37
Jharkhand	1	21
Karnataka	10	493
Kerala	4	174
Madhya Pradesh	8	139
Maharashtra	20	981
Odisha	6	196
Punjab	4	175
Rajasthan	8	115
Tamil Nadu	24	288
Uttar Pradesh	15	212
Uttarakhand	5	39
West Bengal	7	255
India	161	4371

Note: \* as on 27th March, 2011.

Source: NAAC News, Vol. XI, Issue 1 and 2, July 2011.

**(ii) Lesser number of colleges eligible to receive development grants:**

The University Grants Commission (UGC) provides financial assistance to eligible colleges which are included under Section 2(f) and declared fit to receive central assistance (UGC grant) under Section 12 (B) of UGC Act, 1956 as per approved pattern of assistance under various schemes. Out of 817 colleges in Bihar only 338 (41 percent) colleges comes under section 2 (f) and 12 (B). Out of these 338, only 42 colleges are eligible to receive development grants under Section 12(B) of the UGC Act. A large number of colleges are precluded for UGC development grant, as they are unable to meet the minimum eligibility criteria laid down by the UGC - a minimum critical level of quality in terms of physical and academic infrastructure. Similar is the situation of a large number of universities.

**(iii) Shortage of qualified faculty:** Shortage of faculty is another main problem of higher education in Bihar today. Details about the sanctioned and vacant posts in some of the state universities are presented in **Table 7.9**. Out of the total of 13,204 sanctioned faculty posts, 5,425 (41 percent) posts are lying vacant. The pupil-teacher ratio in higher education is as high as 39 as against the national figure of 24. Shortage of faculty is mainly due to non-recruitment over the past two decades. Neither a single post has been created by the government since 1975 nor has any appointment been made against any vacant post since 1996 by any university in the state. Hundreds of posts have fallen vacant following superannuation of several working hands in the last 10 to 15 years. Condition of professional colleges is equally bad in the state. Bihar's six government-run engineering colleges have less than 40 teachers, including principals, to cater to over 4,000 students, triggering

resentment among them and forcing thousands of others to study in other states. The acute shortage of teachers in six colleges can be gauged from the fact that there are over 300 vacancies for teachers, according to college authorities (Economic Times, 2011). Apart from shortage of teachers, the academic profession has also seen a steady decline in popularity in the state due to lack of monetary and other incentives as compared to other professions. Lack of decent monetary incentive is also acting as deterrent in attracting qualified faculties from outside state to take guest lectures. Monthly salary of a faculty working on ad-hoc basis is merely Rs. 12,000/- in state universities. The quality of education also affected because of the complete disengagement of teachers from research. Teachers in the state are more inclined towards their commercial engagement in coaching classes and thus teaching in colleges is adversely affected.

**Table 7.9**  
**Sanctioned and Vacant Posts of Teachers in Universities\* in Bihar in 2011**

<b>Name of University</b>	<b>Sanctioned Posts</b>	<b>Vacant Posts</b>	<b>% Vacant</b>
Babasaheb Bhimrao Ambedkar Bihar University, Muzaffarpur	1625	605	37.23
Bhupendra Narayan Mandal University, Madhepura	1158	375	32.38
Jai Prakash University, Chhapra	937	484	51.65
K.S. Darbhanga Sanskrit Vishwavidyalaya, Darbhanga	335	154	45.97
Lalit Narayan Mithila University, Darbhanga	1680	637	37.92

Magadh University, Bodh Gaya	3856	1500	38.90
Patna University, Patna	957	547	57.16
T.M. Bhagalpur University, Bhagalpur	1556	760	48.84
Veer Kunwar Singh University, Arrah	1100	363	33.00
<b>Total</b>	<b>13,204</b>	<b>5,425</b>	<b>41.09</b>

Note: Data for only 9 state universities are available

Source: Department of Human Resource Development, Government of Bihar

**(iv) Lack of adequate Infrastructure:** Higher education sector in Bihar is facing acute shortage of adequate infrastructure facilities. Universities and colleges in the state lacks even the minimum basic amenities conducive to its academic growth. As the things stand today, the libraries of most colleges and university departments do not subscribe any standard journal and the scholars fail to get the latest books in subjects concerned. The laboratories of science departments are running without the essential equipment and chemicals. Though, most of the colleges have computer center but they are not accessible to students. The number of computer per student is also very low with very limited internet facility. Sharp increase in the enrollment in recent years has also resulted in lack of adequate hostel facility particularly for girls. Very few colleges in the state have career guidance and council center and placement cell. Very few institutes have proper facilities for developing personality, creativity and analytical skills among students.

**(v) Irregular sessions and decline in the effective working days:** Academic sessions in the colleges are highly irregular. The schedule of

examinations is frequently disrupted either due to agitations and strikes of teaching and non-teaching employees or campus violence coupled with political interference. The number of effective working days in a year even according to the schedule is far below the desired level. Although the issue of maintaining minimum teaching days in universities and colleges is linked with the management of academic sessions, the wastage of working days is also caused by several non-academic reasons and pecuniary interests. While colleges suspend regular classes to hold examinations of their own students, a large number of examinations conducted and sponsored by outside agencies also use premises of these institutions for conducting their tests. Working days are also wasted due to old fashioned system of admission which takes at least four to six weeks to complete the admission process.

**(vi) Irrelevant and outdated syllabus:** The issue of offering relevant education also poses serious concern. Academic stagnation and outdated syllabus is another major factor responsible for the deterioration of higher education in the State. There is no sign of progress in terms of new course, updated syllabus or innovative methods of teaching and learning. Whereas innumerable new job opportunities are coming up in the world today and there is unprecedented expansion in both service sector and knowledge sector. Colleges in Bihar are of little help to the student community. They still run conventional courses in a routine style leaving their products hardly equipped to take up the new challenges of the contemporary world of work.

**(vii) Flawed Examination System:** The state is still following the traditional method of examining its students. Examination system lays more emphasis on developing the mugging power rather than on analytical

thinking power of student. Emphasis is laid on passing examinations with high percentage. Semester system is still a new concept in the state. Use of unfair practice in the examination has further aggravated the problem.

#### **7.2.4 Issues Related to Government Spending**

Financing of education has been a matter of great concern and major policy challenge across the globe. A country's education sector competes for public resources with all other sectors and has been a competition for resources within various sub-sectors of education. The fiscal priority accorded to any subsector and proper management of public finance has a direct impact on the quality of services in that sub sector. It is clearly evident from preceding analysis that higher education system in Bihar is suffering from negligible growth of institutions, inadequate number of technical institutes, uneven growth of colleges, low enrollment of students and large number of vacant posts. These things clearly reflect the poor quality of higher educational services in the state and seriously possess question on the expenditure pattern of the government. The present section tries to find out the major issues related to public expenditure on higher education in the state.

##### **(i) Inadequacy of expenditure on Higher and Technical Education:**

Bihar's expenditure on overall education is amongst the highest in the country but its position in terms educational expenditure on higher and technical education is amongst the lowest. During 2009-10, state was spending 4.49 per cent of its GSDP on education sector and 0.57 per cent and 0.02 per cent of its GSDP on higher and technical education respectively. In terms of percentage of total budgeted expenditure, state's position in both these sectors is far from satisfactory. Government is

spending only 3.1 per cent and 0.1 per cent of total budgeted expenditure on higher and technical education sector. On both parameters of measuring relative fiscal priority to given to the sector, Bihar's level of spending is much below the level prescribed by Kothari Commission, National Policy on Education and CAGE Committee. This inadequacy of government budget is seriously affecting the quantity and quality of educational services in the state. As a result large numbers of the universities are suffering from acute deficit in their budgets. Such universities have to borrow in order to meet their committed expenditure. Inadequacy of funds has resulted into lesser investment on infrastructure and other development activities.

**(ii) Complete negligence of Technical Education:** Another problem is failure of planned investment and short-sighted public policy. It is evident from the above discussion that opportunities in technical educations are restricted in Bihar and large numbers of students are going out in the state of desperation. However, it is equally surprising to note that in spite of this crisis in technical education; the state's spending on this sector is lowest in the country (0.44 per cent of the total expenditure on education). Expenditure of other states like Tamil Nadu, Andhra Pradesh, Kerala, Karnataka and West Bengal are pretty high. Bihar cannot imagine of developing itself without developing the technical capacity of its work force. It is therefore important that targets should be fixed and priority should be accorded before starting disbursement of the funds.

**(iii) Negligible expenditure from Capital Account:** A study of accounts of state government expenditure on higher education expenditure during 1991-92 to 2009-10 reveals a very disturbing trend. During this

period Government spending was mainly from Revenue Account rather than Capital Account. From 1991-92 to 1993-94, only about 0.2 per cent of the total higher education expenditure had been spent from Capital Account. After 1993-94 till 2009-10, this proportion was almost negligible and entire amount has been spent from Revenue Account. The negligible proportion of capital outlay over a long period of time has led to increasing infrastructure bottlenecks. Expenditure on current expenses and maintenance of existing infrastructure is inevitable, but expenditure on long term asset creation is equally important for sustainable development. The study indicates that no money has been spent for infrastructure development in the recent past, so it is need of the hour to allocate greater resources particularly from Capital Account.

**(iv) Stagnated Planned expenditure:** The time series analysis of budgeted expenditure on education (Revenue account) showed that more than 90 per cent of total expenditure in higher education and more than 80 per cent in technical education are non-plan expenditure. The situation almost remained stagnant during last forty years. Non Plan expenditure is expenditure on continuing services and activities at levels already reached in a Plan period. Non-plan expenditure is expected to increase steadily over the years. The scope for decreasing this expenditure is very limited, as it involves maintaining the stock of education infrastructure which has been determined by the policies in the previous years. But, planned expenditure should increase with passage of time, as more and more people are entering into the world of higher education. The stagnated growth of Planned Expenditure over the last forty years shows that the state is not spending much to cater to the demand of growing population. This has created a

mismatch between demand and supply of higher educational services in the state.

(v) **Huge inter-district disparity in per student expenditure:** There is huge disparity in terms of per capita expenditure on higher education (PCEHE) across different districts in Bihar. Patna has the highest per capita expenditure on higher education of Rs. 1861.28. Shockingly, the per capita expenditure on higher education is less than Rs. 10 for rest of the thirty seven districts. It is equally surprising to note that, corresponding figure for five districts namely; Kaimur Arwal Seohar, Lakhisarai, and Sheikhpura, is zero. Moreover, it is evident from the analysis in previous chapter that GER in higher education and College-population index is very low in these districts. This is the classical example of disparity in higher education within the state. Low expenditure per student and low GER in higher education suggest a need to reconsider more equitable resource allocation between different regions of the State.

It is evident from the preceding analysis that higher education system in the state is suffering from deep crisis. There are acute regional, social group and gender imbalances with respect to access to higher education reflected in variation in enrolment ratios. Besides, there are large variations in the standards and quality of education imparted in the universities and colleges. Most colleges are providing out-dated, irrelevant and sub-standard education, leading to the degrees and diplomas of little or no substance. The content as well as the quality of education is mostly out of context and the teaching process is unscientific and sub-optimal. Irregular sessions, decline in the effective working days, irrelevant and outdated syllabus and use of

unfair practices in examination are some other serious problems of universities and colleges in Bihar. These problems have not only resulted in the decline of their academic performance but have also led to substantial drop in their reputation and credibility outside. The difficulty in attracting qualified persons to teach in institutions of higher education is one of the most important constraints. Colleges in the state are suffering due to lack of physical and academic infrastructure. One of the reasons for such a situation is gross under-funding to the higher education system i.e. universities and colleges. Only 38 percent colleges are eligible for receiving grants from UGC. The remaining 62 per cent colleges are left without any development assistance as they do not meet the minimum eligibility norms, mostly in terms of physical facilities and infrastructure. Moreover, educational services in the state are adversely affected because of the mismanagement in public spending. Disparity exists in terms of per student spending across districts in the state. The law and order problem and politicization of campuses are also a matter of serious concern that needs to be addressed. All these factors have seriously jeopardized the quality of training imparted at these institutions.

## **7.2 Brief Summary**

In the global knowledge economy, people's skills, learning, talents and attributes – their human capital – become a key to both their ability to earn a living and a wider economic growth. The role of education in facilitating social and economic progress has long been recognized.

**Chapter 1** presents a theoretical framework of importance of education for human capital formation and economic development and also outlines the impact of higher education on raising the productivity, efficiency and

overall development of a nation. The importance of education as an economic variable has a distinguished history beginning with Lewis (1962). The endogenous growth model developed by Arrow (1962), Romar (1986) and Lucas (1988) emphasized the importance of human capital as an endogenous factor of production to explain economic growth. Human capital theory, proposed by Schultz (1961), Becker (1964), Mincer (1974), Psacharopoulos (1984) emphasizes the role of education in increasing the productivity and efficiency of labour contributing to overall welfare of a nation and its people. Education brings economic and non economic returns to an individual. It is not only an instrument of enhancing efficiency but is also an effective tool of widening and augmenting democratic participation and upgrading the overall quality of individual and societal life. Income profile of a person varies with the level of education and acquired knowledge. People with higher level of education start out with higher incomes and enjoy more rapid growth in incomes than those with lower education level (Brian Keeley, 2010). Institutions imparting higher education therefore play a central role in producing quality and efficient workforce. The role of higher education in economic development has been recognized for quite some time amongst policy makers and social thinkers in India and there has been rapid expansion and demand for higher education in different parts of the country. But, the quality of higher education in India is not comparable to other advanced countries. There are issues related to accessibility, equity and quality in higher education system in the country. There are acute regional, social group and gender imbalances with respect to access to higher education reflected in variation in enrolment ratios. There are also large disparities across states in terms of accessibility and quality of university education. Bihar, with glorious history of education and learning

in the past is now one of the most educationally backward states of the country. The current status of higher education in the state is characterized by low enrolment ratio particularly among girls, low completion rate, low college population index and poor qualitative as well as quantitative infrastructure. The present situation with respect to higher education in Bihar has adverse impact on the prospective student of the state. There is growing trend among the students from Bihar to migrate to other parts of the country for educational needs. While, return to education is the main motive for migration, but in the case of Bihar, it is the acquisition of education itself which is becoming an important trigger for migration movements.

**Chapter 2** presents the relevant literary work conducted over the year with respect to higher education and its various aspects. It makes an attempt to present an account of the theoretical and methodological developments relating to the contribution of education to economic growth and development and critical role of education in human capital formation and the overall development of the society. Some scholars have also discussed the global as well as Indian scenario of higher education, problems faced by the sector and the possible strategies to solve the problem. These studies have also pointed out the problem of accessibility as well as the existing disparities in terms of educational institutes among Indian States. Although, in most of the studies on Indian higher education system, it is pertinent to mention that Bihar being as one of the most educationally backward regions of the country, but none of the above studies has exclusively worked on the reasons of this poor higher education system in Bihar. No specific study has been conducted on the problems of out-migrant students of Bihar in the macro perspective, identifying the factors responsible for such out – migration and their source of financing. In view of these facts it seems that

the present study is first of its kind in Bihar and makes an effort to understand some of the above discussed problems.

**Chapter 3** discusses the objective of the present study and the methodology which had been exercised to fulfill objective. The research objective, hypothesis, data sources and methods adopted for data collection and validation has been presented in detail in this chapter. Various technical terms have been used in this study. In order to have a clear grasp over the different aspects of the study, meaning of some of the relevant technical terms is also discussed in the chapter.

**Chapter 4** briefly discusses the development of higher education in Bihar during different periods of time and also analyses the current situations. Bihar had a long history of organized education & learning. During the Vedic period, Mithila, a place in Bihar, was renowned for its Vedic education and scholars. Three world class universities namely Nalanda, Vikramshila and Udaypur were established between the 4th and 8th Century in Bihar. These Universities attracted large number of students and scholars from all over the world. These institutions of learning were destroyed by foreign invaders during fifteenth century. Till the early Seventeenth century, four types of educational institutions existed in Bihar: the Sanskrit Chatuspadi and Madarsas, for higher education and Pathashalas and Maktabas for elementary education. Sanskrit and Persian education was very popular during that time. The reputation of this region for Persian education was so high that many scholars well versed in this language came and settled down here. The curriculum and course structure were very advanced and libraries were normally equipped with books and manuscripts on related languages and disciplines. The situation prevailed till the advent of British Rule. Initially, Britishers were not much interested in

the education system of the country. But, with the passage of time, their attraction towards the rich and traditional knowledge base started. A radical change was introduced in 1835 with Macaulay's Minutes on Education which has directly impacted the content, methodology and medium of Indian Educational system. However, as the number of English schools and colleges were very few in Bihar, this region remained relatively less affected. Wood's Dispatch was introduced in 1854 and on its recommendations the first university of India was established in Calcutta in 1857. As Bihar was part of the Calcutta University, Patna College was established on 9th January 1863. The year 1917 was a landmark in the history of higher education in Bihar. The much awaited Patna University was established in October, 1917. Between 1917 and 1940, series of institutions were established to spread the knowledge of both professional and general education. Until Independence, this region remained the hub of education and research. People used to come and study in Bihar based institutions from different parts of India and abroad. Patna University was once called as Oxford of the East. However, the situation started changing alarmingly by the end of 60s and early 70s when the Universities became the target of political parties. JP movement started during this period left a deep impact on the entire education system in the State and portrayed a very gloomy picture of the Bihar. The quality of teaching deteriorated drastically throughout the state. Malpractices such as mass copying became the order of the day in the 1970s. After Emergency, series of puppet government came to power having lack of vision and apathy towards the development of the State. The game of mass conversion of affiliated colleges into constituent units of Universities started in 1976. This large scale conversion has adversely affected the growth and development of colleges. The game

continued for around ten years which has considerably increased the financial liabilities of universities. During 1980s, various provisions were enacted to curb the Universities autonomy. Number of 'unaided colleges' were started without due consideration of academic needs. The situation further worsened with the change of the government in the State during 1990. Politicization and criminalization of the campus further aggravated the condition. All these changes made Bihar 'pitifully poor state'. Bihar has lost its pre-eminent position and higher education is almost stagnant in the State. The current status of higher education in the state is characterized by low enrolment particularly among girls, low completion rate and poor qualitative as well as quantitative infrastructure. Bihar's rank is the lowest amongst major states in terms of Education Development Index, College-Population Index for professional education (0.4, 2001-02), Gross Enrollment ratio (11.00, 2009-10) and Gender Parity Index (0.53, 2009-10) in higher education. The women enrollment in terms of percentage to total enrollment is amongst the lowest in the State (31.25 per cent, 2009-10). Situation is more alarming in case of number of institutions for professional education. Bihar shares eight per cent of total population of the country but it shares only about 0.35 per cent of engineering colleges, 1.78 per cent of medical colleges, 0.89 per cent of polytechnics and 0.8 per cent of management colleges of the country. There are only 37 medical colleges and 10 engineering colleges in the State. There is huge shortfall in the number of colleges for IT education and polytechnics. Pupil-Teacher ratio is also very high in the state. Bihar has 39 students per teacher whereas, same figure stands at 16 in Andhra Pradesh, 15 in Karnataka, 13 in Kerala and Punjab, and 15 in Tamil Nadu. The poor educational output at the basic level is the clear reflection of poor delivery of educational services. There are also

large disparities in terms of distribution of colleges, enrollment rates and availability of academic as well as physical infrastructure. The main problem of the higher and technical education system is its inability to cater to the demand for quality education. As a result, a large number of students are forced to migrate to other places all over India.

The level of expenditure by government reveals the relative importance accorded to the sector. A state-wise analysis is carried out in **Chapter 5** to discuss the issues related to public expenditure on higher education. Expenditure on total education and higher as well as technical education has increased substantially during the past few decades. Though, Bihar's spending on total education is amongst the highest in the country, the proportion of expenditure on higher education and technical education is very low as compared to other states of the country. The spending on technical education in the state is much below the desired level. State's spending as per cent to GSDP in technical education sector is amongst the lowest across major states of the country. The state's spending as per cent to GSDP in these two sub sectors is amongst the lowest across major states of the country. Moreover, lower per capita spending and huge disparity in terms of spending across different district in the sector has further aggravated the problem. Less government spending has resulted into lesser availability of quality choices and poor academic infrastructure in the state. Most of the districts, which are spending very less on higher education, are witnessing lower college population index and lower gross enrollment ratio in higher education. The vast differences in literacy, negligible growth of institutions, inadequate number of technical institutes poses question on the pattern of spending by the government. It clearly indicates that the action of

the government has not been translated into the desired outcomes in case of higher and technical education in the State.

It is evident from preceding analysis that higher and particularly professional education system is in extremely bad shape in Bihar. Institution in the state are crumbling due to poor funding, inadequate quantity and quality and complete absence of academic physical infrastructure. Large number of students from Bihar is migrating to other places for search of better education facilities. Primary data has been collected to support the evidences found from secondary data and also to find out reason for out-migration of students from Bihar. Results obtained from the primary data analysis have been discussed in **Chapter 6**. The objective was to explore the factors responsible for out-migration. It was found that irrespective of family, socio-economic and cultural back ground that students are willing to go out of the state in search of better education. Respondents gave various reasons for choosing other state over their own State. The major reason as evident from the primary data which influence the decision of respondents for out-migration is the lack of quality education facility in the state. Other reasons include better options available outside the state and prospects of getting better job. It was found that about 62 per cent of respondents cited the lack of proper education facility as the primary reasons for going outside the State. Seventy per cent of students are not satisfied with the curriculum, 85 per cent said curriculum are theoretical and outdated, not revised to meet current demand of the economy. Responses about different parameters of infrastructural facilities clearly indicate the availability of gaps. Placement cell is not working to its capacity and there is lack of research facilities and awareness among students. It is evident from the data that opportunities in higher and technical education in Bihar are restricted and in the state of

desperation resulting into migration of large number of students to other state. Also, comparative analysis of students studying within and outside Bihar has been carried out to understand the relative situation of colleges in Bihar. It was observed that those students who have studied outside state are relatively better off than those who have studied in the state. Discussion with key stake holders threw light on the underlying problems and their likely solutions. The findings of the primary data support the hypothesis that irrespective of other factors, lesser availability of choice in the educational services/ poor educational services is mainly responsible for this outflow. The hypothesis of the study as mentioned in the research methodology holds true. Limited choices as well as low quality in higher education have big influence on the trend of students moving out of state in search of better education.

Higher education system in the state is suffering from multiple inter - related problems like low accessibility, poor quality, irrelevant and outdated syllabus, etc. There is thus, an urgent need to review and gear up the higher educational institutions for both quantitative and qualitative improvement.

### **7.3 Key Recommendations**

The university system in Bihar is far away from the market requirement and ignorant of society's needs. They are running conventional courses and conducting examination without any emphasis on the improvement of human resources which are critical for the benefit of the society. Dr. S. Radhakrishnan rightly pointed out that "there is a need for change in the perception and attitude of universities realizing that their field is wider, task is greater and goal is higher in building a strong and happy India. The universities are not merely places of conferring degrees and distinctions.

They besides being places of learning are also centers of service and wholesome development of human personality; of men and women, turning them into fine human beings. The universities can't stand isolated; they should be active participants in development activities, which are benevolent and beneficial for people. It is unfortunate that the hopes, aspirations and expectations of students are not fulfilled to the extent expected. Therefore it is time to mend and amend the systems which have a negative effect on the society". Keeping in mind the critical issues pertaining to higher education and based on the insights provided by the discussions in previous chapters, key recommendation for the better outcome in higher education are outlined below.

(i) The problem of inaccessibility in higher education due to inadequate number of institutions should be solved on priority basis. New colleges particularly for professional education should be established in order to meet the growing demand of skilled man power. New colleges and professional institutions should be opened keeping in mind the current demand of the economy. These institutions should help student's community to equip themselves with new skills required in the contemporary world. There is a need to increase the number of polytechnic and ITIs in the state to meet the growing demands of skilled labourers in the labour market. New colleges should be started also to solve the problem of regional imbalance, new colleges and research institutions should be established in remote areas.

(ii) The problem of inaccessibility acquires more significance for disadvantaged groups like women, scheduled caste and schedule tribes. Establishment of new institutions coupled with designing and developing new modules as per their needs is therefore necessary to increase their

participation in higher education. Also, designing of part-time courses and teaching in different shifts in colleges should be encouraged to give emphasis on continuing education and keeping in mind the needs of the working professional.

(iii) The freedom of university with respect to course content, appointments and fee structure can be an important step towards creating a university of national repute. Full autonomy should be provided to universities to maintain their standard and keep them competitive for providing quality education. Administrative and academic set up of a university should be restructured with an aim to increase responsiveness and efficiency.

(iv) There is an urgent need to update syllabi, course design and modules in all the colleges and universities of the state. Curriculum should be job oriented and designed as per the relevance as well as market demand. These revised curricula should follow best possible method so as to meet the international as well as national standards.

(v) University should adhere to the academic calendar in order to avoid the problem of delay in academic session. Semester should be introduced in phase manner to provide flexibility so that students have options of selecting subjects of their choice. Similarly, the examination pattern should be revised in such a manner so that hidden talent of students comes out. Examination should aim at judging the analytical or practical attitude of students rather than testing their memorizing ability.

(vi) Attention should be given on much needed improvement in physical infrastructure. All modern facility which can be helpful for learning purposes should be acquired as soon as possible. Computer labs, library, internet facilities, boarding and lodging arrangements should be upgraded to meet the standards set for a world class university.

(vii) There is acute shortage of teachers in most of the colleges in Bihar. It is inevitable that all vacant posts should be filled without further delay. The system of assessment of teachers should also be introduced. There should be provision for teachers to update their knowledge through different training programmes, study tours and seminars and conferences.

(viii) Linking of education with industry is something very desirable today. Industry-institution linkages needs to be encouraged in order to promote relevance in the curriculum, enhance the employability of students, provide training facilities and mobilizing some resources. Industries should be encouraged to help students in completing their on-job training and other practical experiences and also in getting job after completion of particular vocational course. Such an interface with industries would encourage more and more students to opt for the vocational streams instead of going for the general courses, which have not much demand in the job- market. In the process, industry will also get suitable trained manpower relevant and dedicated to its needs.

(ix) As per the recommendation of National Knowledge Commission, state should spend 1.5 per cent of GDP on higher education per year. However, the expenditure-GDP ratio in higher education in the state is much lower than desired level. Moreover, the expenditure should not be only

confined towards meeting the current expenses. More emphasis should be given on creation of long term infrastructure in higher education. The intra-state disparity in terms of per capita expenditure on higher education should be reduced.

(x) The financial requirements of a university should be fulfilled in an earliest possible manner. There should not be any ad-hoc arrangement for funding of university. Also, university should be given complete freedom with respect to raise money to meet their requirements. University should also maintain separate fund for research activities, salary of staff and other extra-curricular activities to avoid any conflict between these critical components of university.

(xi) Fees charged by the universities and colleges in the state are very low. In most universities and colleges, the fee structure has not been revised for several years. Tuition fees must be revised regular basis so as to meet the rising cost of education. Fees for admission, examination, etc., should be so charged as to recover the full cost of these operations. At present the condition of library, laboratory, sports and similar other facilities are in extremely bad. Fees should be revised to meet the maintenance cost of these facilities in colleges. However, there should be provision for providing these facilities to students belonging to economically and socially weaker section on concessional rates. Mechanism for providing scholarships to these students should be strengthened to increase their participation.

(xii) Higher education is of vital importance for the country, as it is a powerful tool to build knowledge-based society of the 21st Century. With the growing size and diversity of the higher education sector particularly in

terms of courses, management and geographical coverage, it has become necessary to develop a sound database on higher education. State should develop an education information system to continually update all the relevant information in order to facilitate research work and to find out the existing gaps and imbalances in the system.

To conclude, the strategy for development of higher education system should include both quantitative and qualitative expansion. The state has to evolve special mechanism to raise the participation of poor but meritorious students and those belonging to the weaker section of the society, particularly in professional higher education. Enhancement of physical infrastructure and academic environment should be given equal importance to improve the situation in the state. Existing disparity across different districts needs to be narrowed down by establishing more number of institutions for higher education in these areas. There is a strong need of enhancement and efficient management of public spending on higher and technical education. The issues related to lower per capita spending and intra-district disparity in public spending need to be addressed with specific funding arrangements through pooled efforts of key stakeholders. To bring out the state from current situation of collapsed system in education sector, the government should take immediate and effective steps at war footing level.