

2015

# corhe research papers 1

## Challenges of Massification of Higher Education in India

N.V. Varghese



**Centre for Policy Research in Higher Education**  
**National University of Educational Planning and Administration**  
17-B, Sri Aurobindo Marg, New Delhi-110016 (INDIA)

# Challenges of Massification of Higher Education in India

N.V. Varghese



**Centre for Policy Research in Higher Education (CPRHE)**  
**National University of Educational Planning and Administration**

17-B, Sri Aurobindo Marg, New Delhi - 110016

**September 2015**

© *National University of Educational Planning and Administration, 2015*  
(Declared by Government of India under Section 3 of the UGC Act, 1956)

First Published – September 2015 (3 H)

Disclaimer: The views in the publication are those of the authors and do not necessarily reflect those of the National University of Educational Planning and Administration, New Delhi.

All rights reserved. No part of this publication may be reproduced stored in a retrieval system or transmitted in any form or by any means, electronics, magnetic tape, mechanical, photocopying, recording or otherwise, without permission in writing from NUEPA.

Published by the Registrar, National University of Educational Planning and Administration  
17-B, Sri Aurobindo Marg , New Delhi and Printed at M/s Archana Printers, Okhla, New Delhi-110020

## CONTENTS

|  | <i>Page No.</i> |
|--|-----------------|
| Introduction   | 2               |
| Trends in the Expansion of Higher Education in India | 3               |
| Massification and Disparities in Higher Education    | 8               |
| Quality Assurance in Higher Education                | 18              |
| Regulatory Bodies in Higher Education                | 21              |
| Financing of Higher Education in India               | 26              |
| Private Higher Education in India                    | 32              |
| Internationalization of Higher Education in India    | 35              |
| Governance and Management of Higher Education        | 38              |
| Concluding Observations                              | 43              |
| Notes  | 44              |
| References   | 44              |

---

# Challenges of Massification of Higher Education in India\*

---

N.V. Varghese\*\*

## Abstract

Although India is in the initial phase of massification of higher education, with around 30 million students, 0.70 million teachers and 36 thousand institutions (in 2012-13), the country has the second largest higher education sector in the world. Unlike the matured market economies, where public institutions facilitated universalization of higher education, massification of higher education in India is a market mediated process facilitated mostly through private institutions and financed by the households. This paper analyzes the trends in and the challenges posed by massification. These challenges of massification include concerns for ensuring equity, improving quality, mobilizing funding, managing and regulating the system. It seems the role of the state will be changing from financing and managing institutions to developing a framework for regulating the system to ensure equity in access and quality in outcomes

---

\* This is a revised version of the Country Paper presented at the International Seminar on *Massification of higher education in large system countries*, jointly organized by the Centre for Policy Research in Higher Education (CPRHE), NUEPA and the British Council of India on 10-11 November 2014 in New Delhi. The author is grateful to the participants of the Seminar and to the internal reviewers for their comments and suggestions to revise the paper.

\*\* Director, Centre for Policy Research in Higher Education (CPRHE), National University of Educational Planning and Administration, 17-B Sri Aurobindo Marg, New Delhi-110016.

## Introduction

Higher education in India refers to study programmes offered beyond the senior secondary level leading to a degree or a diploma. It refers to all study programmes at the ISCED 5 and 6 levels. Higher education in India, like in other countries, has a university component and a non-university component. The universities have the authority to award degrees and offer courses at the under-graduate and post-graduate levels. The non-university institutions in India, in general, offer courses, especially in technical and professional subject areas. The universities, deemed universities and institutions of national importance award degrees while other non-university institutions mostly award diplomas or certificates. India follows a pattern of three years of post secondary education (PSE) for the first university degree (Bachelor's degree) and two years of further studies to obtain a Master's degree. However, a bachelor's degree in professional and technical education programmes may be of longer duration of four years. The research degrees are awarded after successful completion of M.Phil and Ph.D programmes. The research degrees take four to five years of studies after the Master's degree. This paper focuses on higher education in India and it does not deal with study programmes offered at PSE at non-tertiary level (ISCED 4 level).

This paper shows that while public institutions and public funding characterized the growth and expansion of higher education in its elite stage of development, the massification of higher education in India has become a market-mediated process facilitated mostly through private institutions and financed by the households. This is in contrast to the developments in the matured market economies where massification of higher education was facilitated mostly through public institutions. The massification of higher education in India has posed challenges of expanding the system with equity, of improving quality while expanding the system and managing the sector efficiently and effectively. The paper argues for an increasing role of the state or autonomous bodies to regulate the sector especially when the number of non-state actors are proliferating and when there is a need to ensure greater autonomy in the functioning of institutions of higher education.

The plan of the paper is as follows: The next section analyses the dimensions of expansion of the system. Section 3 highlights the extent of disparities accompanying massification of the sector. Section 4 analyses issues related to quality in the process of massification; Section 5 highlights the nature of regulatory bodies in the sector; Section 6 discusses issues related to financing of the sector followed by a section on private sector in higher education in India in Section 7. Section 8 focuses on

internationalization of higher education; Section 9 discusses issues related to governance and management of the sector and the final section makes some concluding observations.

### **Trends in the expansion of higher education in India**

According to Martin Trow's classification of stages of development of higher education (Trow, 2006), a country is at an elite stage of higher education when the gross enrolment ratio (GER) is less than 15 per cent; at a stage of massification when the GER is between 15 and 50 per cent and at a stage of universalization when the GER reaches 50 per cent mark. As per this definition, the higher education sector in India, with a GER of 21.1 per cent in 2012-13, is in its initial stages of massification.

Although the system remains at the lower end of the massification, India enrolls a larger number of students than the largest country (such as USA) which has universalized higher education. With around 28.5 million students, 0.70 million teachers and 35 thousand institutions in 2011-12 (MHRD, 2012a), the higher education sector in India is not only large but also the second largest in the world after China.

The expansion of the higher education sector in India, especially in the recent past, is very impressive. Between 1950-51 and 2012-13, the number of universities and institutions of national importance increased from 27 to 665 and to 691 in 2013-14; colleges from 578 to 35.8 thousand and students from around 200 thousand to 29.6 millions. However, the expansion was the fastest in the decade of 2000s. The enrolment increased from 8.8 million in 2001-02 to 29.6 millions in 2012-13. This implied an addition of around 1.9 million students annually to the sector, making it the highest expansion for any decade (1).

The growth and expansion of higher education in India during the post-Independence period can broadly be categorized into three stages: i) a stage of high growth and limited access (1950-70); ii) a stage of declining growth in enrolment (1970-1990); and iii) a stage of revival and massive expansion of enrolment in higher education 1990 and after (Varghese, 2014). Let us discuss the characteristics of each of these stages.

#### ***A stage of high growth and limited access***

India at Independence adopted a public sector-led strategy of development in all sectors of activity, including education. The access to higher education was essentially through public institutions. Most of the higher education institutions established in India in the 1950s and 1960s were public universities and colleges. Access to higher

education was limited and the enrolment ratio in higher education remained below 5 per cent during this period. The GER was 4.2 per cent in 1970-71 (Table 1)

It seems the policy followed during this period had two important focus areas. First, there was an effort to link higher education with the country's commitment to self-reliance and economic development. Resulting from a strong urge for industrialization for modernizing the economy, emphasis was placed on developing a technological base and human resource capacities. This led to the establishment of specialized institutions outside the university system in Science and technology domains. The establishment of Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), Regional Engineering Colleges (RECs) and several medical colleges reflected the efforts to link higher education with the idea of self-reliant economic development. These select institutions were established in collaboration with foreign countries and they maintained some of the distinct traditions in student admission policies and staff selection procedures. They also received liberal financial support and these factors helped them attain and maintain high quality comparable to global standards. These institutions occupy top positions in the ranking of Indian institutions of higher education.

The second aspect related to higher education development is to expand access. India established several universities and colleges in the public sector. Between 1950 and 1970, 75 universities and around 2700 colleges were established (Table 1). Further, India established a set of national regulatory bodies such as the All India Council of Technical Education (AICTE), University Grants Commission (UGC) and similar other bodies (Table 8) to regulate and maintain overall quality and standards in higher education. This period received strong public support and liberal government funding to expand the system. The sector experienced high rates of growth in enrolment and it was, perhaps, the golden period of public higher education in India. Despite the entire positive environment, the higher education sector in India remained in an elite stage with limited access and low GER below 5 per cent.





**TABLE 1: Higher Education Expansion: Institutions & Enrolments**

| Year        | Central Universities | State Universities | Deemed to be Universities | Institutes of National Importance | Private Universities | Total | Colleges | Enrolments (in millions) | GER % |
|-------------|----------------------|--------------------|---------------------------|-----------------------------------|----------------------|-------|----------|--------------------------|-------|
| 1950-51     | 3                    | 24                 | -                         | -                                 | -                    | 27    | 578      | 0.2                      |       |
| 1960-61     | 4                    | 41                 | 2                         | 2                                 | -                    | 49    | 1819     | 0.6                      | 1.5   |
| 1970-71     | 5                    | 79                 | 9                         | 9                                 | -                    | 102   | 3277     | 2                        | 4.2   |
| 1980-81     | 7                    | 105                | 11                        | 9                                 | -                    | 132   | 4577     | 2.8                      | 4.7   |
| 1990-91     | 10                   | 137                | 29                        | 9                                 | -                    | 185   | 6627     | 4.4                      | 5.9   |
| 2001-02     |                      |                    |                           |                                   |                      |       | 11146    | 8.8                      | 8.1   |
| 2005-06     | 18                   | 205                | 95                        | 18                                | 7                    | 343   | 17625    | 11.6                     | 11.6  |
| 2011-12     | 42                   | 299                | 40                        | 59                                | 178                  | 621*  | 34908    | 28.5                     | 19.4  |
| 2012-13     | 43                   | 308                | 49                        | 61                                | 201                  | 665*  | 35829    | 29.6                     | 21.1  |
| 2013-14 (P) | 43                   | 310                | 127                       | 68                                | 143                  | 691*  | 36671    | NA                       | NA    |

\*This figure includes others category

Sources: NIEPA (2005); MHRD (2012a); (MHRD, 2014a)

### **A stage of declining growth in enrolment**

In the 1970s and 1980s, the higher education sector experienced declining rates of growth in institutions, enrolment and a decline in the share of resources allocated to higher education. While the number of universities and institutes of national importance increased by 53 in the decade of 1960s, the corresponding increase in the decade of 1970s were 30 institutions. Similarly, enrolment increased by 3.3 times in the 1960s while it increased by 1.4 times during the 1970s and 1.6 times in the 1980s (Table 1). The average annual rate of growth declined to 4.0 per cent during the period between 1970 and 1990.

In the 1960s, many private institutions became public, while in the seventies, the aided colleges increased in number and converged. In fact, the public universities and private aided colleges became a common feature of higher education development in the 1970s. 'Private colleges, that were legally private but publicly financed, dominated the higher education landscape until 1980' (Agarwal, 2009, p.72). The institutions in the aided sector were very similar to those in the public sector in many respects. The institutions in the aided sector followed the same study programmes, offered the same courses and students appeared for the same examinations, conducted by the public universities to which these institutions were affiliated. They received the same degrees as their counterparts in public institutions.

It was during the decade of 1970s that the private sector started entering the higher education scene. From the mid-seventies, the private individuals and trusts established self-financing colleges in professional and technical subject areas. This

phenomenon of private self-financing institutions started in the state of Karnataka and soon spread to the states of Andhra Pradesh, Tamil Nadu and Maharashtra. Another important development during this period, especially in the 1980s, was the diversification of the sources of funding by the public higher education institutions.

The cost-recovery measures adopted by the public institutions marked the beginning of privatization of public institutions in India (Varghese, 2013a). As part of the privatization measures, some of the state governments established self-financing courses in public institutions and later started establishing self-financing public institutions. This stage reflected a situation of continued influence of the government in governance and management of institutions of higher education even when there was a move towards reduced reliance on state funding for expansion of the sector. In other words, reliance on public institutions and public funding started declining.

The period 1970 – 1990 was a period of relative decline in public funding, privatization of public institutions and marked the beginning of private unaided higher education institutions in India. The increase in GER during this period was marginal—from 4.2 to 5.9 per cent. The average annual growth rate in enrolment declined from 5.6 per cent during 1950-1970 period to 4.0 per cent during the 1970-1990 period.

#### ***A stage of revival and massive expansion***

The next stage in the development of higher education is marked by a revival and fast expansion of the sector. A revival of the system implied increase in the number of institutions, student numbers, and resource availability in the sector (Varghese, 2012). The expansion during the late 1980s onwards was not constrained by the fiscal capacities of the public exchequer to finance higher education. A large part of the expansion was financed by the households. The Committees appointed by the UGC (the Punnayya Committee of 1992-93) and AICTE (Dr. Swaminathan Panel, 1992) recommended privatization of public institutions through reduced subsidies and increased cost-recovery from students. The Birla-Ambani Committee went one step further when it recommended establishment of private universities and full cost recovery from students.

In the 1990s, the cost-recovery and self-financing of public institutions increased with proliferation of self-financing higher education institutions in the private sector. The self-financing colleges, commonly known as ‘capitation fee colleges’ (Tilak, 1994), were mostly for-profit private institutions. Most of these self-financing institutions were colleges established in the subject areas of engineering, medicine, and management (Agarwal, 2007). The Southern states of Andhra Pradesh, Karnataka, and

Tamil Nadu and the Western state of Maharashtra led the private higher education (self-financing colleges) revolution in higher education in India (Varghese, 2013a).

The capitation fee colleges did not enjoy the authority to design and offer their own courses or award their own degrees. They offered courses, approved by the universities to which they were affiliated, and followed the rules governing the same university. Many of the private institutions found these regulations constraining their growth and expansion. Consequently, many of them sought and obtained the status of deemed-to-be universities. The modification in the UGC regulations made it possible for new institutions to attain the status of deemed-to-be universities. This helped the process of proliferation of private institutions and aggravated problems related to regulating them.

The next phase of development of private higher education was establishment of private universities. Following the passage of the private universities Acts in several state legislatures, the private universities proliferated in many states of India. Between 2002 and 2011, around 178 private universities were established in India. The number of colleges and enrolment increased more than three times during the decade of 2000s. It can rightly be argued that private institutions contributed considerably to the higher rate of growth of 12.5 per cent experienced by the sector during the period between 2001 and 2011.

The open learning systems and the MOOCs platforms also helped in expanding higher education in India. After the establishment of Indira Gandhi National Open University (IGNOU) in 1985, many state governments established open universities. The open universities offer various academic programmes that lead to certificates, diplomas and degrees. The IGNOU coordinates and monitors distance education system in the country and has constituted a statutory Distance Education Council (DEC) that provides expertise and assistance to other open and distance learning institutions in the country. The open learning system contributes to the expansion of enrolment in higher education, although many of those enrolled are matured learners. The open learning system accounts for around 10-12 per cent of the total enrolment in higher education. The Twelfth Plan envisages that nearly 10 per cent of the additional enrolment in higher education during the Plan period will be in open universities.

The period of 1990-91 to 2012-13 experienced a very high growth rate in enrolment, proliferation of capitation fee colleges, deemed-to-be universities in the private sector and emergence of private universities through state legislation. The overall growth increased from 4.0 per cent during 1970-90 to 9.1 per cent during 1990-

2013. The growth rate was still higher at 11.7 per cent during the more recent period of 2001-02 -2012-13. The GER increased from 5.9 to 21.1 per cent during the 1990-2012 period. A major share of the expansion was accounted for by private institutions. In other words, the revival and expansion of the higher education sector in India was accompanied by fast growth of the private higher education institutions.

The Rashtriya Uchchar Shiksha Abhiyan (RUSA), approved by the Cabinet and CBE in 2013, is a first attempt to expand higher education in a mission mode. RUSA attempts to help revive state initiatives in higher education. It is expected that the State Higher Education Councils will be playing an important role in planning and management of higher education in the states. Although, the establishment of state councils were envisaged in the National Policy on Education 1986, only few states established the councils till recently (CPRHE, 2014). Establishment of state councils is a pre-requisite for funding under the RUSA framework. Many state governments are now establishing the State Councils of Higher Education (MHRD, 2013).

To sum up, higher education in India has been expanding in the past decades. The expansion process accelerated in the 2000s, leading the country to enter into a stage of massification of higher education. A closer examination of evolution of policies and initiatives in higher education in India over the past six decades clearly indicates that the country has moved from a public sector dominated higher education system to a private sector mediated system. At present, more than three-fifths of the enrolment in higher education in India is accounted for by private higher education institutions. According to the Twelfth Five Year Plan perspectives (Planning Commission, 2012), the enrolment is expected to increase by around 10 million during the Plan period. No doubt, a major share of this increase will be accounted for by the private institutions. The discussions in this part of the paper clearly show that massification of higher education in India relies more on market forces and private institutions than on public institutions and public funding.

### **Massification and disparities in higher education**

#### ***Low enrolment in post-graduate and research study programmes***

Massification has changed the nature of courses offered by institutions and the choice of courses by the students. Higher education in India is mainly undergraduate education leading to the first university degree (Bachelor's). In 2011, 79 per cent of the total students were enrolled in undergraduate courses, 12 per cent in post-graduate courses, 9 per cent in diploma programmes and 0.41 per cent in research programmes



(Table 2). The enrolment in post-graduate courses is not only low but it also declined from 0.66 per cent in 2005 to 0.41 per cent in 2011.

The low enrolment in post-graduate programmes acts as a severe constraint on the system in terms of lack of qualified teachers. To realize the expansion plans of the sector, the number of teachers required at the higher education level needs to double in the coming years. Further, to provide a strong human capital base for technological advancement and national competitiveness in a globalized knowledge economy, the country needs to expand its research base. The enrolment in research programmes is only around 1,40,000 in 2011 which is totally inadequate to meet requirements of an expanding knowledge economy.

A British Council study, based on a survey of centrally funded institutions, including IIT and IIMs, concluded that the lack of enquiry-based learning and early researcher skills are limiting the capacity of Indian institutions to engage in vital research and innovation activities. The study further pointed out that 'the availability of research funding is not a major problem. The biggest challenge is the lack of good quality proposals. Research funding has been consistently under-spent as a result' (British Council, 2014, p.24). These findings reinforce the need for higher investment in research programmes.

Another notable change in enrolment is the decline in the share of under-graduate level from 89 per cent in 2005 to 79.4 per cent in 2012. There seems to be a corresponding gain in enrolment at the diploma level. In fact, the highest rate of expansion was experienced at the diploma level - an annual average growth of 70.1 per cent and they improved their share in total enrolment. The diploma and certificate courses, which accounted only for 1 per cent of the total higher education enrolments in 2005, accounted for 8.7 per cent of the enrolments in 2011-12 (Table 2). This indicates a change in orientation in terms of choice of study programmes in higher education in India. This major shift in orientation seems to take place at the under-graduate level from degree programmes to diploma programmes. It also reflects diversification of the PSE higher education sector in terms of institutions offering courses, programmes of study and sources of funding (Varghese, 2014). The share of enrolment in research programmes is not only low but also declining from 0.60 per cent in 2005 to 0.34 per cent in 2012.

There has been faster growth over the past five years in professional courses such as engineering, medical, management, law and other vocational courses. This, at times, led to 'disciplinary distortions' (Anandakrishnan, 2010). Professional courses

form the bulk of study programmes offered in private institutions. Many of these courses are at Diploma or certificate levels and are offered in non-university institutions. Since these study programmes are mostly job-oriented, the demand for such courses is high. Although these courses are significantly more expensive than general courses, sometimes upto 10 times more expensive (British Council, 2014), parents are willing to invest in such courses because of the expected high employability of such graduates and their higher salary expectations. The private institutions are in a better position to take advantage of the willingness to pay attitude of the households.

**TABLE 2: Stage-wise Enrolment of Students**

| Sl. No. | Stage               | % to Grand Total 2005 | % to Grand Total 2011 | % to Grand Total 2012 |
|---------|---------------------|-----------------------|-----------------------|-----------------------|
| 1       | Graduate            | 89.0                  | 78.9                  | 79.4                  |
| 2       | Post-Graduate       | 9.2                   | 11.8                  | 11.4                  |
| 3       | Research            | 0.6                   | 0.41                  | 0.34                  |
| 4       | Diploma/Certificate | 1.0                   | 8.7                   | 7.8                   |
|         | <b>Grand Total</b>  | <b>10.0 millions</b>  | <b>28.6 millions</b>  | <b>29.6 millions</b>  |

Source: MHRD (2005); MHRD (2012a); (MHRD, 2014a)

The choice of courses by men and women reveal some interesting trends. At all levels of studies – under-graduate, graduate and post-graduate levels – the largest share of women enrol in Arts and humanity programmes (Chanana, 2006; Chanana, 2012). This is the case of men too. The share of men and women are almost equal in Commerce study programmes. More women than men join study programmes in social sciences, medical sciences, languages and education. The share of men in Engineering courses is almost double that of women. These trends have remained more or less similar in the past several years.

The analysis shows that India needs to target its higher education investments more on investments at the post-graduate level of education to promote research and to ensure better quality in teaching. Private institutions will be less willing to invest in research programmes given its low commercial value. Therefore, the public sector should better target its funding for post-graduate studies and research. There is a need to identify institutions with potential to expand post-graduate education and provide increased funding in order to expand the research base of the country.



### ***Disparities in higher education development***

The emergence of knowledge economy and challenge of global competitiveness is one of the important factors influencing equity, relevance and quality of higher education (Prakash, 2007). The expansion of higher education in India is accompanied by widening disparities which has three dimensions, namely, regional disparities, group disparities and disparities between sexes. The variations in GER are a good indicator of existing disparities in higher education development among the states. During the period between 2002-03 and 2011-12, all states improved their GERs in higher education (Table 3). While the GER increased by three times in states such as Andhra Pradesh and Tamil Nadu and doubled in many of the major states, the increase was relatively less in states like West Bengal.

The inter-state disparities in enrolment (GER) increased over a period of time. In 2002-03, the GER varied between 5.0 per cent in Jammu and Kashmir and 28.7 per cent in Chandigarh. The variation in GER in 2012 was between 4.4 per cent in Daman and Diu and 51.3 per cent in Chandigarh in 2012-13 (Table 3). This shows that the variations in GER increased from 23.7 percentage points in 2002-03 to 46.6 percentage points in 2012-13. This increase in variation is due to varying rates of growth experienced by different states and union territories. A close examination of the state-level data will indicate that larger gains in GER took place mainly in those states where private institutions accounted for a good share of the total institutions and enrolments. The exceptions are smaller states and Union territories such as Delhi, Chandigarh etc.

Based on Table 3, one can see that the states in India belong to varying stages of higher education development. Chandigarh has already universalized higher education and large states such as Tamil Nadu (42.0%), are close to the stage of universalization. While most other states have reached a stage of massification of the sector, states such as Bihar, Chhattisgarh, Jharkhand etc. are lagging behind the national average and from a stage of massification.

**TABLE 3: Gross Enrolment Ratios**

| States/UTs                         | Total GER   | All Categories |             |             |             | SC          |             | ST          |             |
|------------------------------------|-------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                    |             | Female GER     |             | Total GER   |             | Total GER   |             | Total GER   |             |
|                                    | 2002-03 (%) | 2011-12 (%)    | 2012-13 (%) | 2011-12 (%) | 2012-13 (%) | 2011-12 (%) | 2012-13 (%) | 2011-12 (%) | 2012-13 (%) |
| A & N Islands                      | -           | 14.9           | 17.5        | 13.1        | 15.9        | -           | -           | 20          | 9.2         |
| Andhra Pradesh                     | 9.51        | 23.4           | 25.4        | 27.6        | 29.1        | 23.1        | 24.9        | 21          | 23.6        |
| Arunachal Pradesh                  | 6.37        | 24.9           | 18.2        | 30.9        | 19.3        | -           | -           | 35.1        | 22.4        |
| Assam                              | 8.67        | 14.2           | 12.8        | 14.4        | 12.8        | 11.7        | 10.9        | 13.6        | 13.8        |
| Bihar                              | 7.3         | 11.2           | 9.9         | 13.1        | 11.2        | 8.3         | 6.9         | 10.8        | 13.4        |
| Chandigarh                         | 28.68       | 53.8           | 55.2        | 53          | 51.3        | 19.2        | 22.5        | -           | -           |
| Chhattisgarh                       | 7.27        | 9.9            | 11.2        | 11          | 11.8        | 8.8         | 9.0         | 5.1         | 5.3         |
| D & N Haveli                       | -           | 7.1            | 7.4         | 6.5         | 6.3         | 6.1         | 6.3         | 1.3         | 1.8         |
| Daman & Diu                        | -           | 7.6            | 6.9         | 4.2         | 4.3         | 16.2        | 16.5        | 13.6        | 14.0        |
| Delhi                              | 19.4        | 33.6           | 39.2        | 34.8        | 38.5        | 17.8        | 18.2        | -           | -           |
| Goa                                | 13.47       | 40.4           | 25.6        | 37.4        | 23.2        | 27.5        | 22.4        | 21.6        | 12.5        |
| Gujarat                            | 9.65        | 15.7           | 15.5        | 17.6        | 17.6        | 18          | 18.0        | 9.7         | 9.7         |
| Haryana                            | 10.56       | 27.3           | 28.1        | 27.9        | 28.7        | 17.9        | 17.9        | -           | -           |
| Himachal Pradesh                   | 12.76       | 24.2           | 24.0        | 25          | 23.8        | 13.5        | 13.3        | 20.4        | 18.5        |
| J & K                              | 4.95        | 24.9           | 24.5        | 23.7        | 24.1        | 2.8         | 11.0        | 2           | 7.3         |
| Jharkhand                          | 8.12        | 7.6            | 9.8         | 8.4         | 10.1        | 5.4         | 5.9         | 3.9         | 5.7         |
| Karnataka                          | 9.92        | 22.8           | 24.6        | 24          | 25.5        | 15.4        | 16.9        | 12.7        | 15.3        |
| Kerala                             | 7.66        | 26.9           | 26.9        | 23.1        | 22.9        | 17.5        | 17.8        | 12.3        | 14.8        |
| Lakshadweep                        | -           | 0              | 17.7        | 0           | 11.8        | -           | -           | 0           | 3.2         |
| Madhya Pradesh                     | 7.77        | 14.6           | 15.2        | 17.4        | 19.5        | 11.6        | 13.1        | 6.9         | 7.5         |
| Maharashtra                        | 12.3        | 24.8           | 23.8        | 27.4        | 25.6        | 24.9        | 23.3        | 12.5        | 11.1        |
| Manipur                            | 10.19       | 34.4           | 30.2        | 33.4        | 30.3        | 74.5        | 55.2        | 22.7        | 19.5        |
| Meghalaya                          | 10.94       | 18.3           | 17.5        | 16.4        | 17.3        | 37          | 33.0        | 11.1        | 14.7        |
| Mizoram                            | 9.51        | 19.6           | 21.0        | 20.6        | 21.3        | 109.2       | 101.7       | 20.6        | 21.5        |
| Nagaland                           | 4.33        | 13.7           | 11.5        | 17.9        | 13.9        | -           | -           | 17.2        | 10.7        |
| Odisha                             | 8.71        | 14.3           | 14.1        | 16.3        | 15.4        | 9.1         | 8.5         | 7.5         | 6.1         |
| Puducherry                         | 17.88       | 35.1           | 39.1        | 37.1        | 42.1        | 33.5        | 31.8        | -           | -           |
| Punjab                             | 8.53        | 17.1           | 23.8        | 20          | 22.7        | 8.2         | 8.3         | -           | -           |
| Rajasthan                          | 8.77        | 14.9           | 16.2        | 18          | 18.2        | 12          | 11.8        | 13.2        | 12.7        |
| Sikkim                             | 6.29        | 24.4           | 25.9        | 27.9        | 23.6        | 33.9        | 23.3        | 17.8        | 16.4        |
| Tamil Nadu                         | 10.91       | 35.2           | 38.7        | 38.2        | 42.0        | 27.1        | 29.9        | 31          | 34.2        |
| Tripura                            | 5.84        | 9.1            | 11.6        | 11.6        | 14.0        | 10          | 11.9        | 5.8         | 7.2         |
| Uttar Pradesh                      | 7.03        | 18.1           | 18.2        | 16.8        | 18.1        | 12.5        | 13.4        | 18.9        | 21.3        |
| Uttaranchal                        | 12.25       | -              | -           | -           | -           | -           | -           | -           | -           |
| Uttarakhand                        | -           | 27.9           | 34.0        | 27.2        | 33.1        | 16.5        | 18.3        | 30          | 42.8        |
| West Bengal                        | 8.21        | 10.7           | 13.2        | 12.8        | 15.0        | 8.6         | 9.9         | 5.9         | 7.1         |
| All India                          | 8.97        | 18.9           | 19.8        | 20.4        | 21.1        | 14.5        | 15.1        | 10.8        | 11.0        |
| <b>Total Enrolment in Millions</b> | <b>9.95</b> | <b>12.6</b>    | <b>13.3</b> | <b>28.5</b> | <b>29.6</b> | <b>3.4</b>  | <b>3.6</b>  | <b>1.2</b>  | <b>1.3</b>  |

Sources: MHRD (2005); MHRD (2012a); (MHRD, 2014a)



The distribution of institutions of higher education is uneven among the states. India has a total of 35.8 thousand colleges in 2012-13. The state of Uttar Pradesh, the most populous state in India, has the highest number of colleges (4986) followed by Andhra Pradesh (4801), Maharashtra (4658) etc. The number of colleges, per 100 thousand population, gives a better indication of access to higher education and availability of college facilities to new school graduates. The states vary widely on the indicator of colleges per 100 thousand population. For example, there are 25 colleges per 100 thousand population at the all India level. The number of colleges per 100 thousand population varies from six in Bihar, seven in Jharkhand, nine in West Bengal to 61 in Puducherry, 48 in Andhra Pradesh, 44 in Karnataka etc. (Table 4).

**TABLE 4: Number of Colleges per 100,000 Population (18-23 Years)**

| Sl. No. | States/UTs                | No. of Colleges |              | Colleges per 100 thousand population |           |
|---------|---------------------------|-----------------|--------------|--------------------------------------|-----------|
|         |                           | 2011-12         | 2012-13      | 2011-12                              | 2012-13   |
| 1       | Andaman & Nicobar Islands | 6               | 6            | 14                                   | 14        |
| 2       | Andhra Pradesh            | 4814            | 4801         | 48                                   | 48        |
| 3       | Arunachal Pradesh         | 26              | 26           | 16                                   | 16        |
| 4       | Assam                     | 485             | 511          | 13                                   | 14        |
| 5       | Bihar                     | 649             | 665          | 6                                    | 6         |
| 6       | Chandigarh                | 27              | 27           | 19                                   | 18        |
| 7       | Chhattisgarh              | 530             | 584          | 18                                   | 19        |
| 8       | Dadra & Nagar Haveli      | 4               | 5            | 8                                    | 9         |
| 9       | Daman & Diu               | 5               | 3            | 11                                   | 6         |
| 10      | Delhi                     | 184             | 186          | 9                                    | 9         |
| 11      | Goa                       | 49              | 53           | 32                                   | 33        |
| 12      | Gujarat                   | 1805            | 1863         | 25                                   | 26        |
| 13      | Haryana                   | 1055            | 1062         | 33                                   | 33        |
| 14      | Himachal Pradesh          | 296             | 295          | 38                                   | 38        |
| 15      | Jammu and Kashmir         | 307             | 329          | 21                                   | 23        |
| 16      | Jharkhand                 | 234             | 265          | 7                                    | 7         |
| 17      | Karnataka                 | 3281            | 3199         | 44                                   | 44        |
| 18      | Kerala                    | 962             | 1062         | 30                                   | 34        |
| 19      | Lakshadweep               | 0               | 0            | 0                                    | 0         |
| 20      | Madhya Pradesh            | 2061            | 2277         | 24                                   | 26        |
| 21      | Maharashtra               | 4603            | 4658         | 34                                   | 35        |
| 22      | Manipur                   | 79              | 83           | 26                                   | 28        |
| 23      | Meghalaya                 | 61              | 62           | 17                                   | 18        |
| 24      | Mizoram                   | 29              | 29           | 22                                   | 22        |
| 25      | Nagaland                  | 57              | 59           | 22                                   | 23        |
| 26      | Odisha                    | 1089            | 1097         | 23                                   | 23        |
| 27      | Puducherry                | 83              | 83           | 64                                   | 61        |
| 28      | Punjab                    | 973             | 969          | 28                                   | 29        |
| 29      | Rajasthan                 | 2652            | 2681         | 32                                   | 32        |
| 30      | Sikkim                    | 11              | 12           | 14                                   | 15        |
| 31      | Tamil Nadu                | 2309            | 2499         | 30                                   | 33        |
| 32      | Tripura                   | 39              | 46           | 9                                    | 10        |
| 33      | Uttar Pradesh             | 4849            | 4986         | 20                                   | 21        |
| 34      | Uttarakhand               | 395             | 396          | 32                                   | 32        |
| 35      | West Bengal               | 899             | 950          | 8                                    | 9         |
|         | <b>All India</b>          | <b>34908</b>    | <b>35829</b> | <b>25</b>                            | <b>25</b> |

Source: MHRD (2012a); (MHRD, 2014a)

The states that have a high share of private unaided colleges also have a larger number of colleges per 100 thousand population. For example, the share of private unaided colleges in 2012-13 is 81.6 per cent in Andhra Pradesh, 66.4 per cent in Karnataka, 64.9 per cent in Puducherry (Table 5) and these states also have a larger number of colleges per 100 thousand population. Other states having predominantly public universities and colleges have a lower density of institutions. The exception to this pattern is small states and Union Territories such as Delhi, Goa, and Chandigarh etc..

**TABLE 5: Number of Higher Education Institutions by Management  
(based on actual response)**

| State             | Total        |              | Government (%) |             | Private Aided (%) |             | Private Un-Aided (%) |             |
|-------------------|--------------|--------------|----------------|-------------|-------------------|-------------|----------------------|-------------|
|                   | 2011-12      | 2012-13      | 2011-12        | 2012-13     | 2011-12           | 2012-13     | 2011-12              | 2012-13     |
| A & N Islands     | 5            | 5            | 100.0          | 100.0       | 0.0               | 0.0         | 0.0                  | 0.0         |
| Andhra Pradesh    | 3775         | 3821         | 11.0           | 11.0        | 7.2               | 7.4         | 81.8                 | 81.6        |
| Arunachal Pradesh | 10           | 14           | 60.0           | 57.1        | 10.0              | 14.3        | 30.0                 | 28.6        |
| Assam             | 241          | 306          | 85.9           | 86.6        | 4.1               | 3.9         | 10.0                 | 9.5         |
| Bihar             | 549          | 552          | 87.2           | 87.0        | 6.9               | 6.7         | 5.8                  | 6.3         |
| Chandigarh        | 21           | 22           | 61.9           | 63.6        | 33.3              | 31.8        | 4.8                  | 4.5         |
| Chhattisgarh      | 521          | 564          | 47.0           | 46.1        | 12.3              | 11.3        | 40.7                 | 42.6        |
| D & N Haveli      | 5            | 5            | 20.0           | 40.0        | 0.0               | 0.0         | 80.0                 | 60.0        |
| Daman & Diu       | 5            | 3            | 20.0           | 33.3        | 60.0              | 33.3        | 20.0                 | 33.3        |
| Delhi             | 153          | 165          | 51.6           | 52.7        | 10.5              | 7.9         | 37.9                 | 39.4        |
| Goa               | 43           | 49           | 44.2           | 42.9        | 34.9              | 36.7        | 20.9                 | 20.4        |
| Gujarat           | 1662         | 1748         | 36.6           | 36.2        | 23.6              | 23.3        | 39.8                 | 40.6        |
| Haryana           | 384          | 525          | 26.3           | 24.2        | 16.4              | 16.6        | 57.3                 | 59.2        |
| Himachal Pradesh  | 236          | 263          | 47.9           | 46.8        | 7.2               | 5.7         | 44.9                 | 47.5        |
| J & K             | 144          | 202          | 52.8           | 49.0        | 2.8               | 3.0         | 44.4                 | 48.0        |
| Jharkhand         | 91           | 103          | 68.1           | 69.9        | 9.9               | 8.7         | 22.0                 | 21.4        |
| Karnataka         | 3149         | 3006         | 21.2           | 20.0        | 13.9              | 13.6        | 64.9                 | 66.4        |
| Kerala            | 654          | 820          | 23.9           | 19.3        | 23.1              | 22.9        | 53.1                 | 57.8        |
| Madhya Pradesh    | 786          | 1316         | 39.4           | 35.6        | 10.3              | 10.5        | 50.3                 | 54.0        |
| Maharashtra       | 2293         | 2725         | 25.3           | 26.5        | 26.1              | 25.9        | 48.7                 | 47.6        |
| Manipur           | 32           | 69           | 56.3           | 56.5        | 25.0              | 21.7        | 18.8                 | 21.7        |
| Meghalaya         | 27           | 36           | 40.7           | 38.9        | 33.3              | 33.3        | 25.9                 | 27.8        |
| Mizoram           | 29           | 29           | 93.1           | 93.1        | 3.4               | 3.4         | 3.4                  | 3.4         |
| Nagaland          | 60           | 58           | 40.0           | 34.5        | 45.0              | 50.0        | 15.0                 | 15.5        |
| Odisha            | 455          | 525          | 34.7           | 34.3        | 36.0              | 38.9        | 29.2                 | 26.9        |
| Puducherry        | 75           | 74           | 34.7           | 32.4        | 4.0               | 2.7         | 61.3                 | 64.9        |
| Punjab            | 290          | 352          | 23.4           | 23.9        | 8.6               | 13.1        | 67.9                 | 63.1        |
| Rajasthan         | 899          | 1137         | 24.5           | 23.7        | 5.1               | 4.8         | 70.4                 | 71.5        |
| Sikkim            | 15           | 11           | 46.7           | 54.5        | 20.0              | 0.0         | 33.3                 | 45.5        |
| Tamil Nadu        | 2243         | 2366         | 12.9           | 13.3        | 10.3              | 10.7        | 76.9                 | 76.1        |
| Tripura           | 41           | 45           | 78.0           | 86.7        | 12.2              | 4.4         | 9.8                  | 8.9         |
| Uttar Pradesh     | 1213         | 2102         | 21.7           | 21.0        | 19.0              | 16.7        | 59.4                 | 62.3        |
| Uttarakhand       | 189          | 217          | 45.5           | 43.3        | 7.4               | 10.6        | 47.1                 | 46.1        |
| West Bengal       | 863          | 885          | 44.5           | 43.1        | 22.5              | 21.2        | 33.0                 | 35.7        |
| <b>All India</b>  | <b>21158</b> | <b>24120</b> | <b>27.2</b>    | <b>26.9</b> | <b>14.8</b>       | <b>14.9</b> | <b>58.0</b>          | <b>58.2</b> |

Source: (MHRD (2012a); (MHRD, 2014a)

The trends in enrolment also reflect a pattern similar to the distribution of unaided institutions. The enrolment is higher in those states which have a high concentration of unaided institutions. For example, the GER is high and the share of

students enrolled in private unaided institutions in 2012-13 is high in states such as Andhra Pradesh (77.1 %), Tamil Nadu (63.5 %), Puducherry (54.8 %) and Karnataka (46.5%) (Table 6). The share of enrolment in the private unaided sector is very low in states such as Tripura (2.5%), Bihar (3.7%), Jharkhand (4.3 per cent) and West Bengal (9.6 %) where GER is also low. It seems the market operations in higher education is more associated with the income levels of the states or their capacity to attract students from other states as is the case in Andhra Pradesh and Karnataka.

**TABLE 6: Enrolment in Private and Government Colleges  
2011-12 (%) and 2012-13 (%)**

| State             | Total (000s)   |                | Government (%) |             | Private Aided (%) |             | Private Un-Aided (%) |             |
|-------------------|----------------|----------------|----------------|-------------|-------------------|-------------|----------------------|-------------|
|                   | 2011-12        | 2012-13        | 2011-12        | 2012-13     | 2011-12           | 2012-13     | 2011-12              | 2012-13     |
| A & N Islands     | 2.4            | 3.3            | 100.0          | 100.0       | 0.0               | 0.0         | 0.0                  | 0.0         |
| Andhra Pradesh    | 1856.4         | 1808.4         | 13.3           | 13.2        | 10.1              | 9.7         | 76.7                 | 77.1        |
| Arunachal Pradesh | 17.3           | 14.8           | 92.4           | 87.2        | 0.2               | 1.1         | 7.5                  | 11.8        |
| Assam             | 232.1          | 221.3          | 95.7           | 96.9        | 2.0               | 2.1         | 2.3                  | 1.0         |
| Bihar             | 1016.9         | 931.7          | 85.7           | 88.0        | 10.9              | 8.3         | 3.4                  | 3.7         |
| Chandigarh        | 30.1           | 36.3           | 43.0           | 47.6        | 57.0              | 52.4        | 0.0                  | 0.0         |
| Chhatisgarh       | 263.8          | 293.6          | 51.4           | 53.2        | 14.7              | 12.7        | 34.0                 | 34.1        |
| D & N Haveli      | 2.6            | 3.2            | 9.1            | 38.8        | 0.0               | 0.0         | 90.9                 | 61.2        |
| Daman & Diu       | 9.8            | 1.1            | 66.1           | 60.8        | 6.2               | 5.4         | 27.7                 | 33.8        |
| Delhi             | 191.0          | 178.4          | 67.1           | 72.6        | 14.5              | 10.8        | 18.4                 | 16.6        |
| Goa               | 25.9           | 27.0           | 41.4           | 46.0        | 50.7              | 45.2        | 8.0                  | 8.7         |
| Gujarat           | 1005.1         | 1066.6         | 44.7           | 44.1        | 28.8              | 29.1        | 26.5                 | 26.8        |
| Haryana           | 313.0          | 413.6          | 35.1           | 38.2        | 35.1              | 32.4        | 29.9                 | 29.5        |
| Himachal Pradesh  | 128.0          | 116.1          | 77.7           | 74.1        | 6.1               | 6.5         | 16.2                 | 19.4        |
| J & K             | 193.6          | 192.5          | 85.5           | 84.2        | 0.6               | 0.5         | 14.0                 | 15.3        |
| Jharkhand         | 213.3          | 231.0          | 84.2           | 84.6        | 11.2              | 11.1        | 4.6                  | 4.3         |
| Karnataka         | 1233.3         | 1290.1         | 28.9           | 28.3        | 24.8              | 25.1        | 46.3                 | 46.5        |
| Kerala            | 370.0          | 430.6          | 22.1           | 17.7        | 41.1              | 40.7        | 36.8                 | 41.7        |
| Madhya Pradesh    | 475.3          | 734.1          | 62.4           | 56.0        | 9.2               | 9.5         | 28.4                 | 34.5        |
| Maharashtra       | 1573.1         | 1593.7         | 26.8           | 25.6        | 43.1              | 42.4        | 30.1                 | 32.1        |
| Manipur           | 48.9           | 72.2           | 63.5           | 58.8        | 28.7              | 34.0        | 7.8                  | 7.2         |
| Meghalaya         | 25.5           | 30.8           | 26.8           | 31.4        | 55.6              | 52.3        | 17.6                 | 16.3        |
| Mizoram           | 17.0           | 19.7           | 98.0           | 98.0        | 1.3               | 1.3         | 0.6                  | 0.8         |
| Nagaland          | 29.2           | 22.0           | 50.7           | 28.5        | 35.2              | 46.8        | 14.1                 | 24.7        |
| Odisha            | 277.8          | 286.3          | 34.4           | 34.4        | 39.0              | 39.5        | 26.6                 | 26.1        |
| Puducherry        | 34.0           | 36.0           | 40.3           | 40.3        | 5.2               | 4.8         | 54.5                 | 54.8        |
| Punjab            | 207.9          | 243.3          | 38.2           | 36.8        | 14.3              | 20.4        | 47.6                 | 42.8        |
| Rajasthan         | 625.0          | 748.8          | 58.9           | 58.8        | 5.6               | 5.1         | 35.5                 | 36.1        |
| Sikkim            | 136.5          | 5.4            | 86.2           | 80.6        | 5.4               | 0.0         | 8.4                  | 19.4        |
| Tamil Nadu        | 1737.3         | 1918.9         | 16.8           | 17.3        | 19.9              | 19.2        | 63.3                 | 63.5        |
| Tripura           | 39.9           | 44.1           | 94.6           | 95.0        | 2.4               | 2.5         | 3.1                  | 2.5         |
| Uttar Pradesh     | 1368.7         | 2245.9         | 16.3           | 16.2        | 34.1              | 29.6        | 49.6                 | 54.2        |
| Uttarakhand       | 199.9          | 233.4          | 57.2           | 51.9        | 24.5              | 28.2        | 18.3                 | 19.9        |
| West Bengal       | 1241.7         | 1358.6         | 58.4           | 60.9        | 31.8              | 29.5        | 9.7                  | 9.6         |
| <b>All India</b>  | <b>15010.2</b> | <b>16852.7</b> | <b>38.9</b>    | <b>37.7</b> | <b>23.2</b>       | <b>22.7</b> | <b>37.9</b>          | <b>39.6</b> |

Source: (MHRD 2012a); (MHRD, 2014a)

Another dimension of the disparities is between social groups, with regard to their access to and enrolment in higher education. The Scheduled Castes (SC) account for 12.2 per cent of the total enrolment in higher education in India. The Scheduled Tribes (ST) constitute 4.5 per cent (2011-12) and 16.3 per cent (2012-13) of the total enrolment in higher education (Table 7). The share of SC enrolment in 2011-12 is higher than the national average in some of the states such as West Bengal (16.4 %), Tripura (16.4%), Puducherry (15.9 %) and Tamil Nadu (15.6 %). This trend seems to have changed in 2012-13. The GER varies between 8.3 per cent for rural females and 30.5 per cent for urban females and between 7.7 per cent for the Scheduled Tribe population and around 45 per cent for the Christian population (Planning Commission, 2012).

Although the share of enrolment of the students belonging to the Scheduled Tribes is very low (at 4.4 per cent), some of the states with higher concentration of Scheduled Tribe population have a higher share in enrolment. For example, the students belonging to the Scheduled Tribes account for 95.3 per cent in Mizoram, 83.6 per cent in 2011-12 in Nagaland, 79.2 per cent in Arunachal Pradesh, 73.3 per cent in Meghalaya (Table 7). This does not reflect any policy shift or targeted intervention strategies adopted by the governments. These states have a very high concentration of tribal population.

Women account for 44.4 per cent of the total higher education enrolments in India in 2011-12 and 44.9 per cent in 2012-13 (Table 7). The state of Kerala has the highest share (58.9 per cent) of women in colleges followed by 53.0 per cent in Sikkim and 51.3 per cent in Meghalaya. Interestingly, two of the educationally backward states of Assam and Jammu and Kashmir also have more women than men in higher education institutions in 2011-12. There has been progress towards gender equality in enrolment. However, the gender parity index remains at 0.78. In some of the states where GER is relatively high, the number of girls enrolled is larger than that of the boys resulting in a gender parity index of greater than unity.

The surprising trend in gender parity in education is that while the gender parity index (GPI) is below unity even when NER crosses 90 per cent at primary levels, the GPI can be more than unity even at lower levels of GER. For example, the GER in Kerala is 23.1 per cent while the GPI is 1.16. Similarly, in Jammu and Kashmir, the GER is 23.6 per cent while the GPI is 1.1.



**TABLE 7: Share of different Groups in Enrolment 2011-12 and 2012-13**

| State             | All Categories |              | SC           |              |              |              | ST          |             |              |              |
|-------------------|----------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|--------------|--------------|
|                   | Female (%)     |              | SC (%)       |              | Female (%)   |              | ST (%)      |             | Female (%)   |              |
|                   | 2011-12        | 2012-13      | 2011-12      | 2012-13      | 2011-12      | 2012-13      | 2011-12     | 2012-13     | 2011-12      | 2012-13      |
| A & N Islands     | 53.7           | 52.70        | 0.00         | 0.50         | 0.00         | 40.00        | 10.86       | 4.15        | 62.66        | 66.67        |
| Andhra Pradesh    | 42.2           | 43.51        | 14.67        | 15.02        | 44.06        | 44.40        | 5.30        | 5.66        | 40.66        | 40.40        |
| Arunachal Pradesh | 40.2           | 47.22        | 0.55         | 1.00         | 23.21        | 28.93        | 77.53       | 79.24       | 40.99        | 48.36        |
| Assam             | 50.4           | 50.81        | 6.13         | 6.43         | 48.11        | 47.52        | 11.90       | 13.55       | 49.59        | 52.25        |
| Bihar             | 39.6           | 41.15        | 9.54         | 9.30         | 34.95        | 38.71        | 1.01        | 1.47        | 41.51        | 46.13        |
| Chandigarh        | 43.2           | 45.60        | 7.04         | 8.50         | 45.01        | 45.80        | 0.97        | 1.66        | 51.94        | 41.19        |
| Chhatisgarh       | 44.7           | 47.29        | 10.65        | 10.22        | 42.26        | 44.48        | 13.68       | 13.22       | 46.14        | 48.47        |
| D & N Haveli      | 39.7           | 43.44        | 1.49         | 1.60         | 36.00        | 46.30        | 8.25        | 12.04       | 39.71        | 30.96        |
| Daman & Diu       | 47.6           | 41.82        | 6.56         | 6.55         | 64.57        | 56.72        | 14.41       | 14.46       | 33.69        | 29.39        |
| Delhi             | 43.7           | 45.95        | 9.58         | 8.87         | 40.62        | 43.32        | 1.84        | 1.75        | 40.83        | 42.69        |
| Goa               | 49.3           | 50.19        | 1.44         | 1.89         | 48.86        | 52.44        | 5.58        | 5.22        | 48.28        | 52.78        |
| Gujarat           | 41.7           | 41.22        | 7.24         | 7.23         | 42.39        | 41.76        | 7.40        | 7.37        | 47.46        | 46.80        |
| Haryana           | 44.7           | 44.76        | 13.62        | 13.23        | 42.79        | 42.61        | 0.09        | 0.11        | 32.28        | 33.84        |
| Himachal Pradesh  | 47.4           | 49.33        | 14.12        | 14.55        | 46.73        | 49.38        | 4.76        | 4.55        | 48.90        | 51.19        |
| J & K             | 50.6           | 49.18        | 0.95         | 3.65         | 48.49        | 54.28        | 0.95        | 3.37        | 42.85        | 39.41        |
| Jharkhand         | 44.0           | 47.51        | 7.68         | 6.92         | 37.74        | 42.02        | 12.07       | 14.64       | 51.54        | 55.37        |
| Karnataka         | 45.9           | 46.97        | 11.54        | 11.94        | 43.57        | 44.71        | 3.84        | 4.35        | 42.16        | 44.13        |
| Kerala            | 58.5           | 58.94        | 6.87         | 7.03         | 64.96        | 64.48        | 0.84        | 1.01        | 55.41        | 55.18        |
| Lakshadweep       | 0.0            | 72.10        | 0.00         | 0.00         | 0.00         | 0.00         | 0.00        | 25.90       | 0.00         | 75.48        |
| Madhya Pradesh    | 39.2           | 36.39        | 10.70        | 10.77        | 43.63        | 39.50        | 7.71        | 7.46        | 45.00        | 40.44        |
| Maharashtra       | 42.4           | 43.69        | 11.25        | 11.25        | 42.97        | 44.28        | 4.20        | 3.99        | 36.07        | 37.87        |
| Manipur           | 52.3           | 50.48        | 7.66         | 6.24         | 48.94        | 50.38        | 36.20       | 34.30       | 45.15        | 47.10        |
| Meghalaya         | 56.8           | 51.34        | 1.42         | 1.20         | 30.49        | 43.88        | 58.32       | 73.31       | 62.26        | 53.21        |
| Mizoram           | 47.8           | 49.73        | 0.69         | 0.62         | 42.63        | 46.02        | 94.32       | 95.33       | 48.20        | 50.02        |
| Nagaland          | 37.6           | 40.61        | 1.47         | 1.23         | 29.60        | 40.93        | 83.58       | 67.34       | 38.13        | 51.45        |
| Odisha            | 43.9           | 46.07        | 9.84         | 9.75         | 44.56        | 46.57        | 9.91        | 8.58        | 46.22        | 48.37        |
| Puducherry        | 49.0           | 47.42        | 15.87        | 13.22        | 47.32        | 46.34        | 0.87        | 1.49        | 31.89        | 30.48        |
| Punjab            | 39.1           | 47.97        | 13.80        | 12.26        | 39.55        | 49.65        | 0.18        | 0.28        | 23.90        | 37.54        |
| Rajasthan         | 39.1           | 42.01        | 12.23        | 11.90        | 34.48        | 38.15        | 9.40        | 8.87        | 35.80        | 40.86        |
| Sikkim            | 42.2           | 53.04        | 5.87         | 4.79         | 42.85        | 55.64        | 21.10       | 23.02       | 51.50        | 65.08        |
| Tamil Nadu        | 46.2           | 46.04        | 15.60        | 15.63        | 47.73        | 47.53        | 0.92        | 0.93        | 46.24        | 45.91        |
| Tripura           | 40.2           | 42.39        | 16.38        | 16.19        | 38.48        | 40.34        | 16.27       | 16.87       | 37.85        | 39.81        |
| Uttar Pradesh     | 49.6           | 46.22        | 14.98        | 14.91        | 49.36        | 46.96        | 0.57        | 0.60        | 43.64        | 41.64        |
| Uttarakhand       | 50.2           | 50.09        | 11.48        | 10.42        | 49.32        | 48.42        | 3.50        | 4.09        | 54.68        | 51.25        |
| West Bengal       | 41.6           | 43.69        | 16.44        | 16.09        | 40.75        | 42.62        | 2.80        | 2.86        | 40.02        | 42.65        |
| <b>All India</b>  | <b>44.4</b>    | <b>44.89</b> | <b>12.19</b> | <b>16.28</b> | <b>44.31</b> | <b>44.88</b> | <b>4.48</b> | <b>4.44</b> | <b>43.05</b> | <b>44.55</b> |

Source: (MHRD 2013a); (MHRD, 2014a)

The share of women in enrolment is less in Diploma courses than in certificate and degree courses. For example, women constitute 30 per cent of enrolment in

Diploma courses and 32 per cent in PG Diploma courses while their share is 46 per cent at under-graduate levels and 45 per cent in post-graduate courses. The share of women in different levels of study programmes is higher in Kerala and Meghalaya than in other states. This trend is similar to their share in enrolment.

The Twelfth Plan envisages expansion of higher education by setting up of community colleges. Community colleges are expected to provide career-oriented courses which enable graduates to directly enter the labour market. It may also provide an opportunity for secondary school graduates not getting admission to the traditional universities and courses. These Community colleges will provide modular credit-based courses that conform to the National Skills Qualification Framework.

### **Quality Assurance in higher education**

Ever since university rankings started, the debate has been on how to improve one's own university's position in the ranking. In the public perception, there exists a strong link between quality of education and position of the universities in the ranking. Some of the countries, whose universities do not appear in the rankings, are also engaged in developing their own national ranking systems. Many countries are seriously debating on the ways and mechanisms to establish world-class universities (Salmi, 2009).

The previous section showed that disparities are widening while the system is expanding. It is increasingly realized that maintaining quality while expanding the system is a major challenge facing higher education in India. International experience shows that many countries created external quality assurance (EQA) mechanisms to carry out accreditation and quality audit (Martin and Stella, 2007) to ensure that quality does not become casualty while the system expands. The EQA can ensure a threshold level of quality across institutions and can strengthen accountability in terms of learning outcomes in higher education.

The focus in quality assurance has shifted from EQA to student learning. It was felt that the EQA mechanisms and accreditation processes are, perhaps, not the best ways to assess and monitor student learning. Many countries have established internal quality assurance (IQA) mechanisms at the institutional level. The IQA mechanisms help in complying with the requirements of national EQA agencies or regulatory bodies, on the one hand, and respond to the requirements for internal quality monitoring and management, on the other. More importantly, the IQA systems can address issues related to teaching-learning more effectively than an EQA system can. The IQA mechanisms today typically comprise of self-studies and evaluations of

units, monitoring and review of academic programmes, carrying out of student surveys on teaching effectiveness, student and staff satisfaction surveys, analyzing student progression etc..

India too followed these arrangements for quality assurance in higher education. India established external quality assurance agencies in the 1990s (Antony, 2002). The National Assessment and Accreditation Council (NAAC) was set up by the UGC in 1994 to accredit universities and institutions of general higher education and the National Board of Accreditation (NBA) was established by the All India Council of Technical Education (AICTE) in 1994 to accredit programmes in technical education. NAAC accredits institutions and certifies educational quality of the institution based on seven criteria. It classifies institutions on a nine-point scale.

The quality assessment by NAAC is accomplished through a process of self-study and peer review using well-defined criteria. The main purpose of assessment and accreditation is improvement and enhancement of quality, recognizing excellence, accountability, information-providing and benchmarking. Assessment is mainly based on seven major criteria such as: a) curricular aspects; b) teaching – learning and evaluation; c) research, consultancy and extension; d) infrastructure and learning resources; e) student support and progression; f) organization and management; and g) healthy and innovative practices

Accreditation by NAAC is voluntary and is valid for five years. The progress in accrediting institutions is very slow in India. The Twelfth Plan showed that only about one-third of the universities and about one-fifth of the colleges have been accredited at the beginning of this Plan. This trend will change since the UGC has stipulated regulations to ensure that the institution is accredited to become eligible for funds. Similarly, the AICTE has made accreditation by NBA mandatory for all technical institutions. One can expect an increased willingness on the part of the institutions to approach accreditation agencies in the coming days. India, like China, does not have an effective quality assurance system capable of overall supervision (Altbach, 2009). However, the challenge will be carrying out the accreditation process on a large scale within a short period of time. An effective quality-assurance system can help to ensure standards, but neither country has such a system in place currently capable of overall supervision.

Higher education institutions have also established IQA cells. It seems these cells mostly collect data on various aspects related to teaching-learning and prepare reports. The effect of these IQA Cells in monitoring and improving quality needs to be

examined closely. There is a need to strengthen IQA cells and improve teaching-learning in higher education in India especially since the variations in quality between institutions are wide and large. There exists very little information on the effective functioning of the IQA cells and its effects on student learning. The Centre (CPRHE) is planning to launch a research programme to assess IQA's impact on learning outcomes at the institutional level.

The Twelfth Plan envisages active intervention through setting up of Schools of Education to improve teaching-learning processes and learning outcomes in higher education in India. The teaching-learning process depends on several factors, including the subject competency of the teacher, teaching-learning conditions in the classrooms, and the level of motivation and commitment of teachers and students. Many developed countries have established Academies or specialized institutions of teaching and learning to improve learning outcomes in higher education institutions. The Twelfth Five Year Plan of India envisages establishing schools of education to carry out research on the teaching-learning processes and to impart pedagogical training to university teachers.

The objectives of these schools of education are to initiate research on pedagogical practices, provide professional support to promote development of teaching skills, encourage the use of modern technologies in the teaching-learning process, evolve methods to assess quality of teaching and learning, develop instruments to measure teaching effectiveness, to create feedback mechanisms to share the results of teaching effectiveness studies etc..

Learning in the present context is a globally connected process and the teachers and students have access to on-line resources to supplement (if not substitute) the classroom teaching-learning processes. Virtual networking helps teachers and students develop an understanding on how their subject is viewed and presented in other parts of the world. India occupies the second largest position (after USA) in enrolment in Massive Open Online Courses (MOOCs). Many institutions are making efforts to use MOOCs to strengthen the classroom teaching-learning process.

Several institutions from India are joining the MOOCs platform providers to offer courses. The Indian Institute of Technology (IIT), Bombay has joined hands with *Edex* to train engineering teachers. IIT Delhi is offering a course on web intelligence in partnership with *Coursera*. The *Udacity*, in collaboration with Georgia Tech and AT&T, offers an online MOOCs Master's degree in India. It seems the MOOCs platforms are





increasingly used by those select institutions which have an enviable position in providing quality education in India.

India made serious efforts to enhance entry level qualifications and salary levels of teachers in higher education and introduced screening at national and state levels to ensure that only good quality teachers enter the teaching profession. As a follow-up to the recommendations of the Mehrotra Committee report of 1986, the UGC has been conducting a national level eligibility test (NET) for the prospective university teachers. An entry to the teaching profession in universities or colleges requires competing and succeeding in national eligibility tests (NET) or its equivalent at the state-level. Further, the number of teaching staff with doctoral degrees has increased in India. However, whether these efforts contributed to any substantial improvement in quality in higher education is debatable. It seems variations among institutions, in terms of basic facilities, teacher qualifications and competencies and student profiles, are widely prevalent. These variations will have their implications on learning outcomes and quality of higher education.

It needs to be underlined that the quality of education imparted varies widely among higher education institutions in India. India has very high quality institutions which are limited in number. However, the fact that no higher education institution from India appears on the list of world-ranking universities continues to be a major concern and an element of public discourse.

The major challenge in improving quality of higher education lies with addressing issues related to teaching and learning in the majority of institutions, which are colleges affiliated to universities. There is need for active intervention to improve quality and these interventions need to concentrate more on state-level institutions and affiliated colleges in India which are engaged more at the undergraduate level study programmes than at the post-graduate level programmes.

### **Regulatory bodies in higher education**

Education in India, as per the Constitution, is a state subject. Even when education, including university education, was the responsibility of the states, the Central government was assigned the key function of coordination and determination of standards. In 1976, education was transferred to the concurrent list making it a joint responsibility of the Central and State governments.

The higher education sector needs regulation to ensure planned and coordinated development, quality of education, equity and social justice (quotas and

other affirmative policies) and to prevent unfair practices (Ayyar, 2013). The areas which require closer examination and regulation are: granting permission to enter (open an institution), permission to operate – decide on the intake of students and introduction of courses, monitoring its overall performance, including issues related to governance and management and levels of student learning.

The history of regulation of higher education in India started before Independence. In 1921, the government established the Central Advisory Board of Education (CABE) to bring about consensus among provincial governments on policy matters pertaining to education. The first regulatory body in higher education in India was, perhaps, the Medical Council of India (MCI), which was established in 1934. MCI had the authority to lay down norms and standards, recognise or derecognize courses and institutions. The post-Independence government, perhaps, wanted such a body for the higher education sector as a whole and it suggested setting up of a Central Council of University Education.

It seems that the Radhakrishnan Commission favoured a position of less interference from government and more autonomy to universities. It emphasised on the legislative framework for the universities to operate and a strong governing body with external members, thus leaving the universities ‘free from interference’. This view might have influenced the creation of a body such as the UGC which relies more on persuasion than on mandates and coercion. Universities were supposed to be self-regulating entities, expected to voluntarily adhere to standards determined by the UGC.

The recommendations of the Higher Education Commission (Radhakrishnan Commission 1948) and subsequent discussions led to the establishment of bodies such as AICTE and UGC and it helped shift the regulatory authority to the Central government (Carnoy and Dossani, 2011). Centralized regulation was also in line with the strategy of economic development adopted by the country whereby higher education was expected to produce and supply highly qualified personnel to the production sectors of the economy.

The University Grants Commission (UGC) was established as a statutory body by the parliament ‘for coordination and determination of standards in Universities’ in 1956. The draft bill, prepared for setting up of UGC, contained provisions for prior approval of the UGC for setting up of a university and power to derecognize a university degree. This was not retained in the final bill and, consequently, UGC became more of a recommendatory entity (Singh, 2004). However, UGC has taken measures to regulate

institutions. As discussed elsewhere in this paper, the Tandon Committee report on deemed to be universities recommended the closing down of several deemed universities due to poor facilities.

At present, there is multiplicity of regulatory bodies in higher education in India. They also reflect the way higher education is organized in India. Several Ministries are involved in providing higher education and each Ministry has its own body to regulate, as can be seen from Table 8 This Table shows that at least 13 regulatory bodies are operational in the higher education sector. The regulatory bodies exist separately for general higher education, technical education and for professional education. While the Ministry of Human Resource Development remains the Central regulator for higher general and technical education, the respective Ministries are the regulators for professional education. India also has established accreditation agencies such as National Assessment and Accreditation Council (NAAC) for universities and colleges and National Board of Accreditation (NBA) for technical education while professional education is under their respective Councils.

The idea of a single regulatory body for higher education has been under discussion for over two decades. There have been suggestions to create a coordination council of various existing regulatory bodies, which could harmonize varying views on policy matters. The National Policy of Education (1986) and the Plan of Action, 1992 envisaged the establishment of a national apex body for bringing about greater co-ordination and integration in the planning and development of higher education system, which would include higher education and research.

**TABLE 8: Regulatory and Statutory Bodies in Higher Education**

| <i>Name of the Bodies</i>                 | <i>Expected functions</i>   |
|---|---|
| University Grants Commission              | <ul style="list-style-type: none"> <li>• Co-ordination, determination and maintenance of standards in higher education.</li> <li>• Release of grants to individual institutions</li> </ul>  |
| All India Council for Technical Education | <ul style="list-style-type: none"> <li>• Proper planning &amp; co-ordinated development of the technical education system throughout the country.</li> </ul>  |
| Distance Education Council                | <ul style="list-style-type: none"> <li>• Promotion of Open University and Distance Education systems in the educational pattern of the country and for coordination and determination of standards of teaching, evaluation &amp; research in such systems</li> </ul>              |
| Indian Council of Agricultural Research   | <ul style="list-style-type: none"> <li>• Co-ordination of agricultural research and development programmes and develop linkages at national and international levels with related organisations to enhance the quality of life of the farming community</li> </ul>                |
| Bar Council of India                      | <ul style="list-style-type: none"> <li>• Co-ordination, determination and maintenance of standards in legal education and profession</li> </ul>   |
| National Council for Teacher Education    | <ul style="list-style-type: none"> <li>• Achieving planned and co-ordinated development of the teacher education system throughout the country, the regulation and proper maintenance of norms and standards in teacher education and for matters connected therewith.</li> </ul> |
| Rehabilitation Council of India           | <ul style="list-style-type: none"> <li>• Standardization and regulation of training of personnel and professionals in the field of Rehabilitation and Special Education.</li> </ul>   |
| Medical Council of India                  | <ul style="list-style-type: none"> <li>• Establishment of standards in medical education and to define medical qualifications in India and abroad</li> </ul>  |
| Pharmacy Council of India                 | <ul style="list-style-type: none"> <li>• Prescription, regulation and maintenance of minimum educational standards for the training of pharmacists uniformly in the country.</li> </ul>   |
| Indian Nursing Council                    | <ul style="list-style-type: none"> <li>• Regulation and maintenance of uniform standards of training for Nurses, Midwives, Auxilliary Nurse-Midwives and Health Visitors</li> </ul>   |
| Dental Council of India                   | <ul style="list-style-type: none"> <li>• Regulation of the Dental Education, Dental Profession, Dental ethics in the country and recommend to the Government of India to accord permission to start a Dental College, start higher courses and increase of seats.</li> </ul>      |
| Central Council of Homeopathy             | <ul style="list-style-type: none"> <li>• Maintenance of the Central Register of Homoeopathy.</li> </ul>   |
| Central Council of Indian Medicine        | <ul style="list-style-type: none"> <li>• Maintenance of the Central Register of Indian Medicine.</li> </ul>   |

Source: (MHRD 2005)

The National Knowledge Commission in 2006 recommended setting up of an Independent Regulatory Authority for Higher Education (IRAHE), which would be



vested with the authority to regulate the opening of public and private institutions based on verifiable criteria, granting of degrees, performance evaluation and accreditation. This body did not take shape. The Ministry of Human Resource Development (MHRD) appointed another Committee, headed by Prof. Yash Pal, which also recommended an apex body -National Council for Higher Education and Research (NCHER) - in 2011 to regulate the higher education sector. It envisaged increased state funding for higher education, more regulation of the private sector and increased institutional autonomy. The Committee was against commercialization of education and discouraged for-profit private institutions while encouraging partnership with non-profit private organizations in higher education. It was expected that the regulatory body would guard against fast expansion of for-profit institutions providing education of questionable quality.

The IRAHE or NCHER are envisaged as independent regulatory bodies with exclusive powers to regulate the establishment of new institutions of higher education both in the public and private sector, issue licenses to institutions to grant degrees and to accredit organisations to evaluate performance of institutions and monitor standards. The NCHER was supposed to replace existing bodies like the UGC, AICTE, and NCTE etc.. Under the new framework, the role of the UGC could be limited to disbursing grants to universities and institutions while that of a professional body like AICTE or MCI or Bar Council of India to conducting nationwide examinations to license those who could practice as a professional. The Parliamentary Standing Committee which examined the proposal felt that the existing regulatory agencies should continue to discharge their functions while the new body may have only a limited role.

During the period between 2010 and 2013, several bills to regulate various aspects of higher education were drafted. They could not be enacted. One of the important bills pertains to the permission to foreign universities to operate their branch campuses in India. Since the bill could not be passed, the UGC issued, in 2012, regulations governing academic collaboration between Indian and foreign institutions. The regulation permits only collaborations and not starting of independent branch campuses in India by foreign institutions.

The establishment of private universities added another dimension to the regulatory processes and mechanisms in India. The country has experienced reckless growth and expansion of private higher education institutions in the recent past. Many private higher education institutions have very poor infrastructure, insufficient and less qualified faculty members, and levy exorbitant fees from students. Doubts have been raised about the process and consideration based on which approval was

granted to many institutions (Joshi, 2011). It was found that these processes were not transparent and that many of the institutions operated without basic amenities to provide meaningful curriculum transaction and quality of education.

In another instance, in its judgment in a case in 2005 (Yashpal Sharma and others vs. the State of Chhattisgarh), the Supreme Court ruled all colleges established by the Chhattisgarh state under the private universities Act of 2002 as null and void since they did not follow the regulations stipulated by UGC in 2003. This judgment implied closing down 117 private universities established by the state of Chhattisgarh between 2002 and 2005.

In a more recent instance, the Tandon Committee (UGC, 2009) found that some of the deemed universities did not have the infrastructural facilities for quality education and recommended closing down of 41 such institutions. Many of these institutions improved their infrastructural condition and were given the status of deemed-to-be universities. Some of the institutions, which were denied the status, contested the recommendations and it became an issue of public discussion.

It seems there are two issues to be addressed in regulation. The first pertains to whether or not the existing regulations are sufficient. The government is very often criticized for lack of adequate regulatory measures to facilitate growth and expansion of the higher education sector. There is a need to look into the adequacy of the existing regulatory measures with a view to develop a foolproof regulatory mechanism. The second issue pertains to enforcement of the existing regulations. The instances discussed above indicate that there is a lack of incentive for effectively enforcing regulations or, to put it differently, there is a strong reason to be complacent about enforcement of regulations. The higher education system needs to address both the adequacy of regulations and effective implementation of the existing regulations.

### **Financing of higher education in India**

The higher education sector in India, in line with the strategy of economic development, became a state-sponsored sector during the post-Independence period. The public institutions, public funding and management were important characteristics of the higher education development during this period. The public institutions accounted for a major share of student enrolment in higher education in India. There was a strong belief in the role of higher education in facilitating self-reliant economic development. The first education Commission, appointed in independent India, was on



higher education and its recommendations had far-reaching effects to shape the direction of change in higher education.

The public expenditure on education is an indicator of government's commitment to education. One of the commonly used indicators to measure priority accorded to education is the expenditure on education as a share of GDP. The expenditure on education, as a share of GDP (Table 9), has been increasing in India from 0.64 in 1950-51 to 4.29 per cent in 2012 (MHRD, 2014a). Public expenditure on education increased from Rs. 170 million in 1950-51 to Rs. 60677 millions in 2001-02 and further to Rs. 2250545 millions in 2011-12. This is an impressive growth. The public expenditure on education, in constant prices (after adjusting for inflation), was also growing, certainly, though at a lower rate than that in current prices.

The share of education in GDP was the highest in 2000-01. It seems that in the 1990s when public policies, notably economic policies, were market-oriented, the public expenditure on education was increasing. This may partly be due to the fact that external funding in education, especially primary education, increased substantially during this period. This was also a period when the economic growth rates in India were high. In other words, in the 1990s education sector received an increased share of a fast growing economy.

**TABLE 9: Public Expenditure on Education as a share of GDP**

| YEAR        | Expenditure on Education<br>as % of GDP |
|-------------|---|
| 1951-52     | 0.64                                    |
| 1960-61     | 1.48                                    |
| 1970-71     | 2.11                                    |
| 1980-81     | 2.98                                    |
| 1990-91     | 3.84                                    |
| 2000-01     | 4.14                                    |
| 2005-06     | 3.34                                    |
| 2009-10     | 3.95                                    |
| 2010-11(A)  | 4.05                                    |
| 2011-12(RE) | 4.18                                    |
| 2012-13(BE) | 4.29                                    |

Source: (NIEPA 2005); (MHRD (2012b)); (MHRD, 2014a)

A major share of the public expenditure on education has been going to primary education. This is justifiable given the priority to universalize elementary education and continued dominance of public financing of elementary education. In 2009-10, nearly 42 per cent of the public expenditure on education was allocated to elementary education, 25.4 per cent to secondary and 23.4 per cent to higher education (Table 10).

Some of the recent policy suggestions indicate that the share of higher education will be increased to 2 per cent of the GDP by 2020. Another important trend is that is that a major share of the expenditure on education is accounted for by the state governments. In 2009-10, nearly 75 per cent of the public expenditure on education was accounted for by the states while the contribution by the Centre was only 25 per cent.

**TABLE 10: Share of public expenditure on education by levels 2009-10 to 2012-13**

| Sector                        | Expenditure as % GDP |                |                 |                 |             |                |                 |                 |             |                |                 |                 |
|-------------------------------|----------------------|----------------|-----------------|-----------------|-------------|----------------|-----------------|-----------------|-------------|----------------|-----------------|-----------------|
|                               | State/UTs            |                |                 |                 | Centre      |                |                 |                 | Total       |                |                 |                 |
|                               | 2009-10              | 2010-11<br>(A) | 2011-12<br>(RE) | 2012-13<br>(BE) | 2009-10     | 2010-11<br>(A) | 2011-12<br>(RE) | 2012-13<br>(BE) | 2009-10     | 2010-11<br>(A) | 2011-12<br>(RE) | 2012-13<br>(BE) |
| Elementary Education          | 1.25                 | 1.27           | 1.36            | 1.37            | 0.36        | 0.43           | 0.41            | 0.44            | 1.61        | 1.70           | 1.76            | 1.80            |
| Secondary Education           | 0.87                 | 0.89           | 0.94            | 0.94            | 0.12        | 0.10           | 0.11            | 0.11            | 0.98        | 0.98           | 1.05            | 1.05            |
| University & Higher Education | 0.56                 | 0.53           | 0.53            | 0.54            | 0.34        | 0.33           | 0.30            | 0.35            | 0.91        | 0.86           | 0.82            | 0.89            |
| Adult Education               | 0.00                 | 0.00           | 0.01            | 0.01            | 0.01        | 0.01           | 0.01            | 0.01            | 0.01        | 0.01           | 0.01            | 0.01            |
| Technical Education           | 0.17                 | 0.24           | 0.29            | 0.28            | 0.17        | 0.24           | 0.25            | 0.26            | 0.34        | 0.48           | 0.54            | 0.54            |
| <b>Total (Education)</b>      | <b>2.85</b>          | <b>2.94</b>    | <b>3.12</b>     | <b>3.13</b>     | <b>1.00</b> | <b>1.11</b>    | <b>1.07</b>     | <b>1.16</b>     | <b>3.85</b> | <b>4.05</b>    | <b>4.18</b>     | <b>4.29</b>     |

Source: MHRD (2012b); (MHRD, 2014c)

Higher education expenditure increased substantially in the past decade, especially during the Eleventh Five Year Plan period. During the past decade, public expenditure on higher education increased by around four times, at current prices, and by more than two times in real terms. In fact, the share of higher education in the state budgets remained at around 16-17 per cent in the past decade.

As noted above, a major share of the expenditure on education is accounted for by the states. Although nearly 75 per cent of the total public expenditure on education is spent by the states, the state's share declines to 61 per cent in higher education (MHRD, 2012b). A major share of the Central government expenditure is allocated to Central universities and institutions of national importance as grants. Similarly, a major share of grants from the technical education budget goes to institutions such as the IITs.

It may be interesting to see how states invest their resources at different levels of education (Table 11). Most of the educationally backward states invest a very high share (50 to 60 percent) of their resources in primary education. Jharkhand invests more than 70 per cent of its resources on primary education. States such as Arunachal Pradesh, Chhattisgarh, Jharkhand, Madhya Pradesh etc. invest more than 60 per cent





of their budgeted expenditure on primary education whereas more than 50 per cent of the resources of Punjab and Goa are invested at the secondary level. The expenditure on higher education is less than 20 per cent of the budgeted expenditure in most of the states. The public expenditure on higher education varies partly also due to the presence of private providers in some of these states. This trend is similar to a declining trend in per student public expenditure (in real terms) on higher education. At constant prices, there was a decline of 28 per cent in per student expenditure in higher education between 1990-91 and 2001-02 (NIEPA, 2005).

The discussions on financing of higher education need to address issues related to diversification of sources of funding to mobilize additional resources and equitable distribution of public funds between Centre and state governments. While several Committees and Commissions have addressed the former issue, little attention is paid to the latter issue. In fact, RUSA is an effort to reach a better balance in allocation of resources between Central and State governments in higher education.

The government enjoyed a near monopoly in financing and managing higher education institutions in India till the 1980s. The resource allocation criteria, traditionally followed for transfer of resources from the government to institutions, was based mostly on inputs. The efficiency in resource allocation and use has become an area of concern and public debate. In recent times, there is an increasing demand for assessing the performance of institutions and to relate funding to performance of institutions. In the context of discussions on result-based management, performance-based funding has replaced the input based criteria for allocation of funds from the government to public institutions. The new scheme of RUSA, too, has suggested implementation of performance-based funding in higher education (MHRD, 2013).

**TABLE 11: Public Expenditure on Education in 2010-2011 and 2012-13**

| STATE/ UTs                    | ELEMENTARY (%)  |                 | SECONDARY (%)  |                | ADULT (%)    |               | HIGHER (%)     |                | TECHNICAL (%)  |                | OTHERS (%)    |               |
|-------------------------------|-----------------|-----------------|----------------|----------------|--------------|---------------|----------------|----------------|----------------|----------------|---------------|---------------|
|                               | 2010-11 (A)     | 2012-13 (B.E)   | 2010-11 (A)    | 2012-13 (B.E)  | 2010-11 (A)  | 2012-13 (B.E) | 2010-11 (A)    | 2012-13 (B.E)  | 2010-11 (A)    | 2012-13 (B.E)  | 2010-11 (A)   | 2012-13 (B.E) |
| Andhra Pradesh                | 41.44           | 42.09           | 36.30          | 36.64          | 0.34         | 0.26          | 15.68          | 14.88          | 5.48           | 5.48           | 0.55          | 0.46          |
| Arunachal Pradesh             | 63.52           | 61.86           | 25.25          | 26.85          | 1.14         | 1.16          | 7.31           | 8.02           | 1.08           | 0.90           | 1.70          | 1.22          |
| Assam                         | 52.37           | 51.00           | 29.58          | 28.20          | 0.38         | 0.38          | 13.74          | 17.43          | 1.50           | 1.86           | 0.28          | 0.31          |
| Bihar                         | 62.54           | 61.60           | 20.35          | 17.68          | 0.31         | 0.42          | 14.89          | 18.19          | 0.50           | 0.50           | 0.19          | 0.63          |
| Chhattisgarh                  | 62.37           | 59.46           | 24.18          | 28.58          | 0.01         | 0.02          | 11.01          | 9.36           | 1.35           | 1.29           | 1.05          | 1.24          |
| Goa                           | 20.11           | 20.00           | 55.27          | 57.95          | 0.18         | 0.25          | 17.61          | 13.93          | 5.78           | 6.70           | 0.86          | 0.79          |
| Gujarat                       | 58.69           | 59.60           | 28.96          | 28.48          | 0.56         | 0.03          | 8.07           | 7.20           | 2.47           | 3.08           | 1.20          | 1.58          |
| Haryana                       | 52.75           | 58.25           | 31.51          | 27.70          | 0.04         | 0.14          | 12.19          | 10.28          | 3.38           | 3.63           | -             | -             |
| Himachal Pradesh              | 58.61           | 58.54           | 32.88          | 32.87          | 0.03         | 0.04          | 7.16           | 7.18           | 0.84           | 0.91           | 0.25          | 0.22          |
| J & K                         | 43.56           | 49.10           | 42.57          | 36.98          | 0.00         | 0.32          | 11.31          | 10.68          | 2.31           | 2.26           | 0.25          | 0.65          |
| Jharkhand                     | 75.93           | 73.51           | 11.84          | 12.10          | 0.04         | 0.18          | 9.78           | 11.16          | 2.04           | 2.57           | -             | -             |
| Karnataka                     | 51.31           | 54.46           | 29.70          | 28.29          | 0.13         | 0.15          | 13.82          | 12.45          | 2.63           | 2.79           | 2.21          | 1.69          |
| Kerala                        | 40.41           | 37.22           | 38.60          | 39.79          | 0.09         | 0.13          | 15.11          | 15.89          | 4.80           | 5.82           | 0.50          | 1.06          |
| Madhya Pradesh                | 63.34           | 64.62           | 24.89          | 23.41          | 0.01         | 0.01          | 8.65           | 8.92           | 2.11           | 1.96           | 0.91          | 0.98          |
| Maharashtra                   | 46.09           | 44.51           | 39.70          | 41.35          | 0.10         | 0.09          | 10.28          | 9.77           | 3.49           | 3.90           | 0.33          | 0.38          |
| Manipur                       | 45.33           | 44.97           | 34.54          | 31.18          | 0.89         | 1.07          | 15.51          | 20.02          | 2.09           | 1.05           | 1.39          | 1.54          |
| Meghalaya                     | 58.37           | 50.47           | 27.82          | 31.55          | 0.63         | 0.57          | 8.81           | 12.03          | 1.00           | 2.31           | 3.37          | 3.06          |
| Mizoram                       | 51.47           | 48.22           | 26.92          | 24.57          | 0.57         | 0.53          | 10.23          | 14.74          | 0.98           | 1.23           | 1.74          | 2.27          |
| Nagaland                      | 54.48           | 56.98           | 35.78          | 32.91          | 0.04         | 0.14          | 8.26           | 8.45           | 1.36           | 1.44           | -             | -             |
| Odisha                        | 52.94           | 54.36           | 24.15          | 27.23          | 0.05         | 0.13          | 20.50          | 15.57          | 1.39           | 1.41           | 0.43          | 0.42          |
| Punjab                        | 23.04           | 28.35           | 65.93          | 61.09          | 0.01         | 0.01          | 8.64           | 8.36           | 1.65           | 1.48           | 0.45          | 0.46          |
| Rajasthan                     | 59.27           | 54.80           | 32.86          | 38.11          | 0.08         | 0.13          | 6.01           | 5.18           | 0.69           | 0.80           | 0.14          | 0.13          |
| Sikkim                        | 3.66            | 4.23            | 87.07          | 84.37          | 0.02         | 0.01          | 4.67           | 5.79           | 0.20           | 0.49           | 4.37          | 5.03          |
| Tamil Nadu                    | 44.58           | 43.45           | 36.69          | 40.47          | 0.05         | 0.04          | 10.70          | 8.51           | 3.96           | 5.41           | 2.25          | 1.92          |
| Tripura                       | 39.21           | 45.48           | 49.83          | 42.74          | 3.93         | 3.50          | 5.02           | 6.15           | 0.98           | 1.19           | 0.74          | 0.69          |
| Uttarakhand                   | 47.77           | 45.42           | 41.37          | 45.52          | -            | -             | 7.25           | 5.49           | 2.31           | 2.35           | 0.80          | 0.78          |
| Uttar Pradesh                 | 59.49           | 58.78           | 31.25          | 31.71          | -            | -             | 7.17           | 7.85           | 0.94           | 0.80           | 0.47          | 0.32          |
| West Bengal                   | 35.67           | 36.95           | 48.42          | 45.41          | 0.05         | 0.17          | 12.30          | 12.96          | 2.04           | 2.61           | 1.25          | 1.59          |
| <b>TOTAL STATES</b>           | <b>50.40</b>    | <b>50.60</b>    | <b>34.53</b>   | <b>34.47</b>   | <b>0.15</b>  | <b>0.15</b>   | <b>11.09</b>   | <b>10.88</b>   | <b>2.51</b>    | <b>2.77</b>    | <b>0.79</b>   | <b>0.79</b>   |
| A. & N. Islands               | 54.98           | 54.04           | 32.29          | 31.48          | 0.37         | 0.29          | 6.39           | 5.53           | 3.34           | 3.11           | 2.43          | 5.30          |
| Chandigarh                    | 24.26           | 34.84           | 15.60          | 22.63          | 0.17         | 0.39          | 51.79          | 27.69          | 7.28           | 13.24          | 0.56          | 0.82          |
| D & N Haveli                  | 72.77           | 62.50           | 18.50          | 16.48          | 0.13         | 0.10          | 0.04           | 14.00          | 3.32           | 2.82           | 5.24          | 4.10          |
| Daman & Diu                   | 46.00           | 33.91           | 38.02          | 43.15          | 0.24         | 0.21          | 6.19           | 9.50           | 6.55           | 9.05           | 3.01          | 4.18          |
| Delhi                         | 21.95           | 23.12           | 65.61          | 63.74          | 2.33         | 2.32          | 3.08           | 3.11           | 4.86           | 4.49           | 2.07          | 3.11          |
| Lakshadweep                   | 9.55            | 0.00            | 40.50          | 1.09           | -            | -             | 9.40           | 0.00           | -              | -              | 40.54         | 98.91         |
| Puducherry                    | 36.98           | 35.35           | 33.41          | 33.54          | 0.13         | 0.31          | 16.84          | 19.00          | 10.67          | 10.07          | 1.87          | 1.57          |
| <b>TOTAL UTs</b>              | <b>25.99</b>    | <b>27.09</b>    | <b>54.84</b>   | <b>55.04</b>   | <b>1.73</b>  | <b>1.83</b>   | <b>9.29</b>    | <b>6.38</b>    | <b>5.49</b>    | <b>5.41</b>    | <b>2.52</b>   | <b>4.11</b>   |
| <b>TOTAL (STATES UTs)</b>     | <b>49.71</b>    | <b>49.96</b>    | <b>35.10</b>   | <b>35.03</b>   | <b>0.20</b>  | <b>0.19</b>   | <b>11.04</b>   | <b>10.76</b>   | <b>2.59</b>    | <b>2.84</b>    | <b>0.84</b>   | <b>0.88</b>   |
| <b>Total Centre</b>           | <b>56.47</b>    | <b>51.73</b>    | <b>12.91</b>   | <b>13.20</b>   | <b>0.91</b>  | <b>0.96</b>   | <b>17.58</b>   | <b>21.11</b>   | <b>11.50</b>   | <b>12.36</b>   | <b>0.22</b>   | <b>0.26</b>   |
| <b>Grand Total</b>            | <b>51.21</b>    | <b>50.36</b>    | <b>30.17</b>   | <b>30.04</b>   | <b>0.36</b>  | <b>0.37</b>   | <b>12.49</b>   | <b>13.12</b>   | <b>4.57</b>    | <b>5.02</b>    | <b>0.70</b>   | <b>0.74</b>   |
| <b>Total Rupees in Crores</b> | <b>119581.4</b> | <b>163103.8</b> | <b>70450.7</b> | <b>97276.2</b> | <b>832.4</b> | <b>1188.5</b> | <b>29169.4</b> | <b>42504.6</b> | <b>10673.3</b> | <b>16250.0</b> | <b>1636.1</b> | <b>2387.3</b> |

Source: (MHRD, 2012b); (MHRD, 2014 c)

The dominant role of the government in financing higher education sector has come to an end and, at present, expansion of the sector does not rely heavily on public

funds. The role reversal in financing higher education has taken place due to the reform measures of privatization of public institutions and promotion of private institutions in the sector (Varghese, 2013a). From the 1980s onwards, some of the state governments initiated measures for cost-recovery and, in some instances, started self-financing courses in public institutions. With the liberalization policies of the 1990s and introduction of market-friendly reforms, privatization of public institutions became an acceptable practice in India.

Some of the Committees appointed by the government also strongly recommended cost-recovery in higher education. For example, cost-recovery through fees has been recommended by Punnayya Committee and Swaminathan Committee in the early 1990s. These Committees come to the conclusion that the fee levels in higher education in India were low and that there existed good scope for mobilizing resources from this source. They recommended a recovery of 15 per cent initially and 25 per cent (Punnayya Committee) eventually of the total expenditure on higher education. The Birla-Ambani Committee favoured cost-recovery and promotion of private institutions. Yash Pal Committee argued for affordable education either through scholarships or loans.

The amount of fees to be levied in the universities and their equity implications were an area of debate in India (Bhushan, 2010; Chattopadhyaya, 2007; Rani, 2002; Tilak, 2004). Many universities increased fees in the past two decades and in many cases, the share of the cost recovered surpassed 20 per cent. The level of fee levied in institutions such as IITs and IIMs, on the other hand, are not only high but are also close to the per student expenditure in these institutions. Within the university system, the cost-recovery, in general, is less in Central universities and more among state universities. In fact, it is the affiliated colleges (whether under Central or State universities) that mobilize more resources than the university departments. One activity where universities produce surplus (income over expenditure) is in the conduct of examinations.

Student loan schemes, which are becoming very popular nowadays, belong to the category of financing institutions indirectly – through students than through direct transfer to the Institutions. The student loans have a long history in India. The government of India started a student loan scheme in 1963 which continued till 1991 and was discontinued thereafter. One of the major reasons for its discontinuance was the low rates of loan recovery. The student loans re-appeared in a different form and format in the present century.

In 2001, the Government of India announced a new comprehensive educational loan scheme to be implemented by the public sector banks (Agarwal, 2006). In the meeting of the CABE of 2012, there was a proposal to establish a Credit Guarantee Fund Trust (CGFT) to facilitate student loans. Under this programme, it is expected that loans up to Rs. 0.4 million will be given without any collateral security while loans above Rs. 0.4 million to Rs. 0.75 million will be given with a third party guarantee. The student loans in India are growing in its coverage and many students are getting benefitted by it.

India has witnessed an unprecedented growth of the private sector in higher education. More than 60 per cent of the enrolment in higher education in India is in private institutions. This trend indicates the willingness of the households to invest in higher education and, thus, a transfer of the incidence of the cost burden of higher education from public to the households. Although the government was not willing to finance students in the private institutions, many state governments are funding students in the private institutions. This is more so in states such as Andhra Pradesh and Tamil Nadu where there has been a decline in enrolment in private engineering colleges.

Student loans have become an important source of financing education in the private institutions. Student loans are a good source of financing the high rates of fees levied by the private unaided higher education institutions. Many students take loans in technical and professional subject areas to pursue studies in other states within the country. The amount of loans being availed of is reasonably high and is also relied on for pursuing studies abroad. In some instances, the students in private unaided institutions are supported by public funding.

It seems the total resource availability in the sector has increased as a result of increased investment by the public sector and contributions by the household thanks to the proliferation of private unaided institutions. There are indications to show that direct funding to institutions is slowly getting replaced by indirect funding of institutions through student loans and financial support to students in the form of scholarships or cash transfers.

### **Private Higher Education in India**

Public universities were the most common institutions to expand higher education in most parts of the world (Bjarnason et al. 2009). Over a period of time, public universities in Europe became entrepreneurial (Clarke, 1998) with diversified sources of funding while the expansion of private higher education in the developing

countries accelerated through private higher education institutions (Varghese, 2013a). The Indian experience shows that the policy on higher education has gone through a process of evolution from reliance on public institutions to promotion of private higher education institutions.

Private higher education in India progressed through different phases. Initially, the private initiatives were mostly through the grants-in-aid system where a major share of the expenditure was covered by the grants from public sources. From the 1980s onwards, there was a fast expansion of self-financing private higher education institutions, most commonly called capitation fee colleges. The capitation fee colleges, unlike the grants-in-aid colleges, were mostly for-profit private institutions and offering courses in the subject areas of engineering, medicine, and management (Agarwal, 2007). As noted elsewhere in this paper, the Southern states of Andhra Pradesh, Karnataka, and Tamil Nadu and the Western state of Maharashtra led the private higher education (self-financing colleges) revolution in India.

Another important development was the expansion of deemed universities in the private sector in India in the 1990s. Changes in the rules for granting deemed-university status were introduced which permitted even new higher education institutions to acquire a deemed university status. This led to proliferation of deemed universities, mostly in the private sector. Unlike the private colleges, the deemed to be universities could plan and introduce new study programmes and award their own degrees. This helped many private institutions to be independent and free of controls by the universities and acted as an incentive to transform private institutions into deemed universities. Between 1991 and 2005, 66 institutions, out of a total of 95 deemed institutions, were private.

The Tandon Committee (UGC, 2009), after inspections and physical verifications, found that many of the deemed universities were lacking basic infrastructure, quality research and faculty. They recommended the closure of 41 such deemed universities. As of 2014, seven such institutions were closed down while the remaining 34 continue to function. During the period between 2005 and 2011, there was a decline in the number of deemed universities. This decline in number of private institutions deemed to be universities may be partly due to another development, namely the establishment of private universities.

The recommendations, which later came to be known as the Ambani-Birla Report, recommended introduction of user pay principle in higher education and establishment of private universities in the country (GOI, 2000). In 2012, the Planning

Commission of India officially released the Narayana Murthy Committee report on Corporate Sector Participation in Higher Education (GOI 2012). The committee recommended possibilities and modalities for the corporate sector participation in expansion of higher education and research in India (Mathews et al. 2014). In 2013, the FICCI (2013) brought out a vision document which also emphasised the important role of the corporate sector in higher education in India. All these reports were in favour of increased role of the private sector in higher education in India.

In response to the requests received to establish self-financing universities, the government introduced in the Rajya Sabha in August 1995 the Private Universities (Establishment and Regulation) Bill. The Bill was never passed but the state legislations incorporated the legal framework, proposed in the bill, in their legislations on private universities. The UGC brought out regulations on such private efforts through its regulations in 2003 – Establishment of and Maintenance of Standards in Private Universities Regulations. Following the passage of the private universities bills in state legislatures, several state governments established private universities. As discussed in a previous section, between 2002 and 2011, around 178 private universities were established in India.

The private sector has, no doubt, contributed to the fast expansion of higher education in India (Tilak, 2014). However, the private sector was under closer scrutiny and involved in court cases from the 1990s onwards. The private self-financing colleges and their discriminatory fee policies were challenged in the Karnataka court (Mohini Jain vs. State of Karnataka case in 1992). Subsequently, the Supreme Court banned the capitation fee as it did not agree with a discriminatory fee structure. In another case (Unnikrishnan vs. State of Andhra Pradesh 1993), the Supreme Court came strongly against for-profit higher education institutions and noted that ‘they are poisonous weeds in the fields of education and are financial adventurers without morals and scruples and characterized them as pirates in high seas of education’ (Gupta, 2008, p. 250). In another court judgment in 2005, as noted earlier, (Yashpal Sharma and others vs. the State of Chhattisgarh), the Supreme Court ruled all colleges established by the Chhattisgarh state under the private universities Act of 2002 as null and void. Consequently, 117 private universities were closed down in the state.

Many private institutions are offering poor quality education and they are also becoming sources of corruption. The reckless growth of self-financing private colleges has resulted in establishing institutions which have very poor infrastructure, insufficient and less qualified faculty members. How did such institutions obtain approval by AICTE to operate is a mystery to many. The investigations show that the

process of granting permission to open and operate these institutions was not transparent. Enrolment to many private technical and professional colleges is declining partly due to the questionable quality and high cost of education. All these instances reinforce the point that India needs stronger regulatory measures to facilitate growth and expansion of the private sector in higher education.

The expansion of the private involvement in higher education has witnessed several transitions. Initially, the private sector involvement in higher education was more in management, with less funding of institutions as reflected through the private aided sector. The next phase of transition saw emergence of private higher education institutions in the form of self-financing (capitation fee colleges) institutions. In the next stage, many private institutions attained the status of deemed-to-be universities and, finally, a larger number of private institutions have established themselves as universities. In fact, some of the deemed universities became private universities. However, enrolment in private institutions continues to increase (even when enrolment in private engineering and management institutions are on the decline) and this increases their share in total enrolment. Taking into account the undesirable and corrupt practices that surfaced, the public policy needs to explore possibilities of evolving reliable and effective regulations to make private sector a reliable partner in higher education development in India.

### **Internationalization of higher education in India**

The higher education sector is increasingly globalized in different forms and ways. Many universities are competing to produce their graduates for the global labour market. The technology mediated education helps this process of globalization of education. The emphasis on skilled labor and technological capability in improving the national competitiveness, the role of higher education is taking on a greater significance (World Bank, 2012). Internationalization is becoming dearer to national governments.

International cooperation in education takes place mostly through cooperation projects and academic exchange programmes (Knight, 2006). International cooperation in higher education in the context of globalization has become a market mediated activity to promote production of skills for the global labour market (Varghese, 2013b). The franchising and twinning arrangements, establishment of branch campuses, promotion of cross-border student mobility etc. are influenced more by the commercial motives than by educational ones.

Under GATS, international collaborations take place through four modes – mobility of programmes, students, institutions and teachers. As noted earlier, cross-border trade in education takes place through study abroad programmes of students, institutional collaborations and mobility, mobility of programmes and teachers (Knight, 2002; Sharma, 2001). Among these modes, cross-border trade through students has been the most common. The cross-border mobility of institutions and programmes is of relatively recent origin.

The cross-border student flow pattern indicates that India is the second largest sending country after China. In 2010, India sent around 201 thousand students abroad for higher studies (UIS, 2012); the number declined to 1.89 thousand in 2012. The share of Indian students to total international students doubled between 1995 and 2012 from 2.3 percent to 4.7. The USA and the UK have been the favourite destinations for Indian students seeking cross-border education. While these countries still remain favourite destinations for Indian students, the destinations of Indian cross-border students has changed over a period of time. The share of Indian students going to USA has been declining – from 78.5 per cent in 1995 to 51.3 per cent in 2012 (Table 12). The share of Indian students seeking higher education in UK increased substantially from 5.5 per cent in 1995 to 19.0 per cent in 2010. However, the share is declining and it may be partly due to the changes in visa rules, especially visa to stay and work after studies.

**TABLE 12: Changing destination of Indian students abroad**

| Host countries | 1995 | 2004 | 2010 | 2012 |
|----------------|------|------|------|------|
| USA            | 78.5 | 67.6 | 51.8 | 51.3 |
| UK             | 5.5  | 10.6 | 19.0 | 15.8 |
| Germany        | 1.7  | 4.2  | ..   | ..   |
| Canada         | 2.6  | ..   | 2.3  | 4.3  |
| Australia      | ..   | 5.2  | 10.2 | 6.2  |

Source: UIS (different years)

Australia is becoming a favourite destination for cross-border Indian students. Australia accounted for 10 per cent of the Indian students abroad in 2010. Some other new destinations are New Zealand and UAE. The increased inflow of Indian students to UAE is a reflection of the emergence of education hubs – branch campuses of foreign universities operating in the region.

The other part of the student flow is the number of foreign students hosted by India. India hosted 27,000 foreign students in 2010. This is only around 15 per cent of



the students India is sending abroad. Of the total foreign students in 2010, nearly 19 per cent were from Nepal, followed by Bhutan, Iran, Afghanistan, Malaysia, Sudan and Iraq. Nearly 76 per cent of the foreign students in India came for under-graduate studies mostly in technology (B.Tech), commerce (B.Com) and medical studies such as MBBS, Bachelor of Pharmacy, Dental sciences etc.

The institutional mobility is more through institutional collaborations than through establishment of branch campuses (Varghese, 2015). India does not permit foreign universities to establish and operate branch campuses in India (Mathews, 2014). However, several collaborative ventures and partnerships exist. A study of 131 foreign-affiliated institutions in India (Bhushan 2005) showed 59 partnered with universities in the UK and 66 partnered with universities in the USA and a majority of them (nearly 80 per cent) offered courses in business or hotel management (Bhushan, 2005). According to another recent survey by the Association of Indian Universities (AIU, 2012), foreign collaborations with Indian higher education institutions increased from 144 in 2000 to 631 in 2010. The largest number of the collaborating institutions was from the UK (158), followed by Canada (80) and the USA (44).

The recent regulations by the UGC on foreign collaborations stipulates that: i) Indian institutions need at least a grade B accreditation to enter into collaboration with foreign institutions; ii) Indian institutions should have experience of at least five years offering educational programmes at the level of degree and post-graduate diplomas; iii) Government institutions are exempted from accreditation clause for the purpose of these regulations. Further, in a circular dated September 17, 2014, the UGC has requested all universities and affiliated colleges to take prior permission from the UGC before they sign MoUs, collaborations with foreign educational institutes, host promotional activity in a foreign land or student exchange programmes.

Several high-level delegations are visiting India to establish institutions as branch campuses or collaborations with Indian institutions. During the visit of the British Prime Minister to India in 2013, many programmes involving twinning arrangement between British and Indian institutions to offer joint degree programmes, research collaborations and teacher training programmes were signed. Similarly, during the visit of the President of France in 2013, 17 university collaborations were signed which included student exchange programmes, mobility of researchers to promote joint research projects, cancer research, renewable energy and energy storage for deployment projects etc.. The collaborations signed included

those between Delhi University and Science Po, CNRS and Indian Institute of Science, Bangalore etc. (Misra and Sharma, 2013).

Another aspect of internationalization is that of Indian institutions establishing campuses abroad, either independently or in collaboration with the existing national institutions. At times, Indian private institutions establish campuses abroad. For example, the JSS Academy of Technical Education is established as an independent institution in Mauritius while DY Patil Post-Graduate School of Medicine in 2009 at Quatre-Bornes, is established in partnership with the University of Technology, Mauritius (UTM). An off-shore campus of Manipal University operates in Malaysia while Amity University operates campuses in the US, UK, China and Singapore. There are four Indian private institutions represented in the Dubai International Academic City. Another interesting development is that one of the southern states of India – the State of Kerala - recently decided to set up an International Academic City along the lines of Dubai education city (Mathews, 2014).

India has not yet emerged as a favourable destination for international students. Although there has been an increase in the number of students coming to India, it still remains very low. It is seen more as a country sending students abroad than one hosting international students.

### **Governance and management of higher education**

Governance involves structures and decision-making processes. Management implies the implementation of decisions, involves specification criteria for the allocation of resources to various activities, the allotment of responsibilities and tasks to various groups, and the evaluation of performance. The three important players influencing management decisions in higher education are the state, the market, and the society at large. Therefore, changes in governance imply changes in the ways the relationship between the state, the market and the civil society are structured and monitored.

India, like many other countries, is experiencing a change in the governance structure and management practices in higher education. At Independence, higher education was virtually the exclusive domain of the public authorities. Public institutions and government funding were the salient features of higher education development during this period. The most commonly found governance pattern, if not the only one, in India used to be the state-controlled model. The government played an important role in planning, funding and managing higher education institutions. In a



sense, expansion of higher education was dependent on public policy support and financial support from the government.

The fiscal crisis of the 1980s reduced the capacity of the governments to finance an expanding system of higher education. A reduced funding support from the government compelled many public institutions to diversify sources of funding. It also reduced the authority enjoyed by the government in matters related to governance and management of institutions of higher education. The establishment of self-financing public and private institutions necessitated decisions to be taken at the institutional level. These changes helped shifts in governance structures from a state-controlled model to a state-supervised model whereby institutions became more autonomous in their functioning.

The entry of the market in higher education decision-making has further changed the governance structure and management practices at the institutional levels. While universities have become entrepreneurial (Clarke, 1998) in their orientation, governance and management of institutions has become market-oriented and managerial in approach. Resource mobilization has become one of the important considerations in governance of institutions. A market-friendly approach to manage institutions is also accompanied by measures to improve efficiency in operation, improve performance of institutions and staff and resource allocations based on institutional performance. In other words, an input-orientation in resource allocation is replaced by an output and outcome orientation. Accountability measures and mechanisms have become an integral part of institutional governance and management practices.

Another important step that may influence management of higher education at the state-level is the State Higher Education Councils (SHECs). The National Policy on Education (NPE) of 1986 recommended establishment of SHECs to strengthen state-level planning and coordination of higher education. In 1988, the UGC issued guidelines to constitute SHECs. According to the UGC guidelines, SHECs are entrusted with planning and coordination, academic, advisory and administrative functions.

The planning and coordination functions include initiatives to improve the standard of higher education, to advice state governments on various issues relating to development of higher education in the state, to monitor and release grant-in-aid from state governments to universities and colleges, to promote cooperation and coordination of higher education institutions among themselves, to explore the scope for interaction with industry and other related establishments, to propose guidelines

for establishment of new institutions, and to suggest ways to augment resources to the sector. Academic functions include the promotion of innovations and restructuring of courses, improvement of standards of examinations, promotion of programmes of academic cooperation, interactions between colleges and university departments and academic staff training. Advisory functions include determining block maintenance grants, laying down the basis for such grants, setting up of a state research board etc..

The first SHEC in India was set up by the state of Andhra Pradesh in 1988, Tamil Nadu in 1992, West Bengal in 1994, Uttar Pradesh in 1995. All other SHECs came into existence in the 2000s. Under the RUSA, it has become mandatory to set up SHECs to prepare plans and facilitate flow of funds. As on March 2014, there were eight SHECs. Now many state governments are in a hurry to establish SHECs. RUSA considers SHECs as key bodies in higher education in the states to plan for its higher education development in the state, to ensure quality and to facilitate fund flows.

The relationship between SHECs, Department of higher education, state Planning Boards and universities needs to be redefined to facilitate the smooth function of the SHECs. It is hoped that the SHECs will remain an influential professional body in matters pertaining to planning, managing and coordinating activities of higher education (CPRHE, 2014).

The role of the SHECs becomes all the more important since the sector is expanding and the expansion takes place more at the state levels and because the expansion of the sector is accompanied by diversification. Therefore, the scope of the SHECs needs to be seen beyond the immediate context of RUSA. The Twelfth Plan envisages the following: i) reputed affiliated colleges will be converted into universities; ii) college-cluster universities will be created; iii) large and unwieldy affiliating universities will be bifurcated or trifurcated; iv) some of the colleges may be made autonomous; v) more autonomy in governance and management to all affiliating colleges (Planning Commission, 2012). All these changes are directly targeting state-level institutions, and the role of professional bodies, such as SHECs, becomes all the more important.

Institutional autonomy is one of the important elements influencing governance and management of higher education. The universities were seen as autonomous entities from the beginning. Even the first Commission on education in independent India (Radhakrishnan Commission) of 1948, emphasised the importance of autonomy to the universities to free them from interference from the government. The Commission felt that higher education institutions should be seen as self-governing



organisations to ensure academic excellence. The Kothari Commission also underlined the importance of institutional autonomy. So also the UGC Committee on university governance in 1968. The Gnanam committee report sought greater autonomy of universities from the government and participation of teachers and students in managing the universities. The government appointed a CABE Committee on university autonomy (MHRD, 2005) which also upheld the importance of autonomy for institutions of higher education.

‘Autonomy is the prerogative and the ability of an institution to act by its own choices in pursuit of its mission and goals’ (Pandey, 2004, p.79). It has different dimensions. Academic autonomy is the freedom to decide curriculum, syllabus, instructional material, pedagogy etc.. Administrative autonomy refers to the freedom to manage one’s own affairs at the institutional level. Financial autonomy is the freedom to the institution to expend the financial resources at its disposal in a prudent way, keeping in view its priorities. Financial autonomy will also include the freedom to mobilize and allocate resources to different functions within an institution. India also has autonomous colleges and the autonomy enjoyed by them is not substantial on many aspects, including on matters pertaining to finances (Rao, et al. 1999).

Granting of autonomy is also accompanied by efforts towards increasing accountability measures. Accountability is the academic, administrative and financial responsibility with defined goals for each constituent, namely teachers, students, administrative staff and all others aiming towards providing quality education for the betterment of the society (MHRD, 2005). There is a need for increasing accountability measures and ensuring transparency in matters related to governance and management. The governance structure should be conducive for consensus-making, resulting in both autonomy and accountability. Effective autonomy cannot descend as a "gift" from above; it has to be earned (Prakash, 2011). The institutional leadership is an important factor to earn and effectively exercise autonomy.

While universities enjoyed autonomy in theory, they were controlled and regulated by the government in practice. The exercising of autonomy also varied among institutions. The idea of institutional autonomy operated relatively well in the select institutions such as IITs and IIMs (Anandakrishnan, 2010). It seems that the prestige enjoyed by these institutions, their collaborations with external institutions, their professoriate and the high degree of professional and academic standards maintained these institutions, helped them exercise autonomy in a more meaningful manner than other institutions.

This was not the case with State universities and colleges which were over-regulated and controlled by the government. Many of them were starving for funds and the criticism by the states and institutions seems to be that the central authorities gave and the state governments received plenty of advice and directions and little of funding from the UGC and AICTE (Ayyar, 2013). The institutions received more directives than funds from the state governments. In many instances, the institutional head made a difference in exercising autonomy and mobilizing resources. Therefore, the selection of a Vice-Chancellor of a university is very important step, influencing the management of institutions. In many states, the appointment of the Vice-Chancellor is made by the Chancellor or the state government. The political influence continues even when the selection process is through a duly constituted search committee.

A typical governance structure in a university consists of an elected Senate, a syndicate consisting of representatives from teachers, senators, government officials etc. and a non-elected academic council. The Chancellor of the university is the chairman of the university council or court. The Chancellor nominates members of the Council, presides over the Council meetings and convocations to award degrees, appoints Vice-Chancellors, and pro-Vice-Chancellors. The Vice-Chancellor needs to mediate between these bodies, teacher unions, employees' unions and student representatives to facilitate a smooth functioning of the university.

Higher education system in India largely resides not only in the states but also in the affiliated colleges. Nearly 90 per cent of the enrolment is in the affiliated or private institutions. Most of the public universities in India have affiliated colleges. The private universities are not permitted to have affiliated colleges. The university departments house schools of study and focus their attention on teaching at the post-graduate level and research. The affiliating colleges provide instruction largely at the under-graduate level. The universities are responsible for determining the curriculum, overseeing academic standards and conducting centralized examinations for the candidates enrolled in the affiliated colleges.

The governance and management of affiliated institutions will decide the fate of higher education in the country. Most of the colleges have their own structure of governance. They have a Governing Body/Board of Governors. These bodies are influential in deciding the direction of change in management of college affairs. The institutional head of the colleges in many government institutions is appointed, based on the seniority rather than through a selection process. There is a need to introduce objective criteria-based selection of heads of institutions at all levels and orient the selected heads to planning and management of institutions. The experiences of

several countries, that have introduced leadership training programmes in higher education, may be helpful in designing similar programmes in India.

### **Concluding Observations**

The analysis shows that higher education in India has been expanding very fast. While expansion of the sector till the 1980s depended largely on public funding and fiscal capacities of the state, in the present context, it does not rely heavily on public funding. It is the private institutions that are enrolling a larger share of students than public institutions. Therefore, it is argued in the paper that unlike in the developed countries where massification was facilitated through public institutions, in India, this process is market-mediated and the non-state actors play an important role.

The compulsions to expand the sector will continue in India for various reasons. The graduates from secondary schools are on the increase. The mean scores of the secondary school graduates are increasingly inflated, making many more eligible to be enrolled in higher education institutions. More importantly, India has a demographic dividend. By 2020, India will have one of the youngest populations in the world and, in the 2020s, India will have the largest tertiary-age population in the world. Many of them will be belonging to the middle classes with paying capacities to finance their higher education. This will relieve the policy-makers from resource constraint decision-making in higher education. We may also expect an increasing role of the market in (higher education decision-making) this domain.

The growth of the sector is accompanied by widening disparities, especially that of regional and group disparities. The experience in the recent past has shown that the fast expansion of the sector, mostly through private institutions, is also accompanied by increasing disparities. One of the major public policy issues will be to devise ways and means to reduce inequalities while expanding the system. The strategies to ameliorate the situation may focus on regulating the growth of the system and targeting of public investments towards higher education of the deprived groups.

The other related challenge is on how to improve quality while the system is expanding. One of the major challenges in expanding the sector will be availability of teachers. The enrolment to post-graduate levels and research programmes are low and if the current trends continue, one cannot expect adequate supply of qualified teachers to meet expansion targets. Therefore, there is a need to provide adequate incentives to increase enrolment in the post-graduate study programmes, recognizing the possibilities of international migration of the highly educated.

One of the problems of fast expansion, not discussed in detail in this paper, is the increasing number of university graduates in the labour market. Will expansion lead to increasing unemployment of the graduates? There is need to link higher education with job skills (Srivastava and Khare, 2012). One of the areas for intervention will be to promote the non-university sector in higher education. What are needed are short-duration PSE courses, leading to certification in skills that are in demand in the labour market. One may expect more of vocation-oriented study programmes and an expansion of enrolment in such study programmes in the non-university institutions.

Experience in the recent decades has shown that even when multiple regulatory bodies exist, the regulation of the sector is weak. Therefore, there is a need to devise ways and means to effectively regulate the system. This may imply that instead of a reduced role of the state, the coming years may experience an increasing role of the state or other autonomous regulatory bodies. However, the role of the state will be changing from financing and managing institutions to supporting or developing a framework for moving towards a more regulated system to ensure equity in access and quality in outcomes.

### Notes

1. A part of this explosion in numbers may be due to the inclusion of students in the distance education programmes included in the recent estimates of enrolment. Even if we discount this factor which accounts for 10-12 per cent of the total enrolment, the expansion experienced by the higher education sector remains impressive and highest for any decade.

### References

- Agarwal, Pawan (2006): *Higher Education in India: The Need for Change*, Working Paper No. 180, New Delhi, ICRIER. Workin.180.
- Agarwal, Pawan (2007): *Private higher education in India: Status and Prospects*, London, Observatory of Borderless Higher Education (OBHE).
- Agarwal, Pawan (2009): *Indian Higher Education Envisioning the Future*. New Delhi: Sage.
- Altbach, Philip (2009): 'Giants awake: higher education systems in China and India', *Economic and Political Weekly*, 06 June.
- Anandkrishnan, A. (2010): 'Accountability and Transparency in University Governance', *University News*, Vol. 48, No. 45, 8-14 November, pp. 18-23.
- Antony, Stella (2002): *External quality assurance in Indian higher education: Case study of the National Assessment and Accreditation Council (NAAC)*. Paris: International Institute for Educational Planning.
- Association of Indian Universities (2012): *Foreign Educational Providers in India, 2010*. New Delhi: AIU.



- Ayyar, R.V.V. (2013): 'Unfashionable Thoughts: An ex-policymaker's perspective on regulation in education', Paper presented at the Workshop on Education Policy, Hyderabad: TISS.
- Bhushan, S. (2005): 'Foreign universities in India: Market-driven new directions', *International Higher Education*. No.41 (Winter), pp. 4-5.
- Bhushan, S. (2010): *Public Financing and Deregulated Fees in Indian Higher Education*. New Delhi: Bookwell.
- Bjarnason, S., K.Cheng, J. Fielden, M. Lemaitre, D. Levy, N.V. Varghese (2009): *A new dynamic: Private higher education*. Paris: UNESCO.
- British Council (2014): *Understanding India: The future of higher education and opportunities for international cooperation*. London: British Council.
- Carnoy, Martin and Rafiq Dossani (2011): *The changing governance of higher education in India*, Working paper, Stanford University.
- Centre for Policy Research in Higher Education (2014): *A Report of the meeting on State Higher Education Councils*. New Delhi: CPRHE/NUEPA (mimeo).
- Chanana, Karuna (2006): 'Gender and disciplinary choices: women in higher education in India', in Guy Neave (ed.) *Power, authority and dissent: critical perspectives on the emerging knowledge society*, Paris: UNESCO, pp.267-94.
- Chanana, Karuna (2012): 'Higher education and gender issues in knowledge economy: who studies what, why and where', in Deane Neubauer (Ed.) *The emergent knowledge society and future of higher education: Asian perspectives*, Oxfordshire: Routledge, pp.177-93.
- Chattopadhyay, S. (2007): "Exploring Alternative Sources of Financing Higher Education in India", *Economic & Political Weekly*, 20 October, pp. 4251-259.
- Clarke, Burton (1998): *Creating entrepreneurial universities*, Paris and Oxford, IAU and Elsevier Science.
- Federation of Indian Chamber of Commerce and Industry (2013): *Higher education in India: Vision 2030*. New Delhi: FICCI.
- Government of India (2000): *Report on a Policy Framework for Reforms in Education*, Prime Minister's Council on Trade and Industry, GOI, New Delhi
- Government of India (2012): *Committee on Corporate Sector Participation in Higher Education: Report of N R Narayana Murthy Committee*, Planning Commission, New Delhi.
- Gupta, A. (2008): "Judicial interventions and private higher education in India", in A. Gupta, D.C. Levy, K.B. Powar (Eds.), *Private higher education global trends and Indian perspectives*, Delhi: Shipra Publications, pp.239-52.
- Joshi, S.K. (2011): 'A new direction of governance and regulation in higher education', *Journal of Educational Planning and Administration*, Vol.1, No.2, pp.173-178.
- Knight, J. (2002): *Trade in higher education services: Implications of GATS*. London: Observatory on Borderless Education.
- Knight, J. (2006): *Higher education crossing borders: A guide to the implications of the GATS for cross-border education*, Paris: UNESCO/Commonwealth of Learning.
- Martin, M., A. Stella (2007): *External quality assurance in higher education: Making choices*. UNESCO/IIEP: Paris.

- Mathews, Eldho, Biju A. Chittuparamban, Sharvari Joshi, Payal Dey (2013): 'Engaging the Corporate Sector: Narayana Murthy Committee Recommendations on Higher Education', *Economic and Political Weekly*, 20 July, pp. 41-47.
- Mathews, Eldho (2014): 'Internationalization: where is India headed', *Higher Ed.*, 25 September.
- Ministry of Human Resource Development (2005): *Report of the Central Advisory Board of Education (CABE) Committee on Autonomy of Higher Education Institutions*, Department of Secondary and Higher Education, New Delhi.
- MHRD: Ministry of Human Resource Development (2009): *Report of the Committee to Advise on Renovation and Rejuvenation of Higher Education*, New Delhi, MHRD.
- MHRD: Ministry of Human Resource Development (2011): *Educational Statistics at a glance*, New Delhi, MHRD.
- Ministry of Human Resource Development (2012a): *All India Survey of Higher Education*, Department of Higher Education, New Delhi.
- Ministry of Human Resource Development (2012b): *Analysis of Budgeted expenditure*, GOI, New Delhi.
- Ministry of Human Resource Development (2013): *Rashtriya Uchchatar Shiksha Abhiyan (National higher education mission)*, GOI, New Delhi.
- Ministry of Human Resource Development (2014a): *Educational Statistics at a Glance*, GOI, New Delhi.
- MHRD: Ministry of Human Resource Development (2014b): 'Record of proceedings of the 62nd meeting of the CABE held on 10 October 2013', New Delhi, MHRD.
- Ministry of Human Resource Development (2014c): *Analysis of expenditure on education 2010-11 to 2012-13*, GOI, New Delhi.
- Mishra, Aliya (2011): "India: Regulation Lags Private Sector Growth", *University World News*, Issue No: 197
- Misra, Aliya and Yojana Sharma (2013): 'UK, France vie for research collaboration with India', *University World News*, 02 March, Issue no. 261.
- National Institute of Educational Planning and Administration (2005): *The Report of the CABE Committee on Financing of Higher and Technical Education*. New Delhi: NIEPA.
- Pandey, I.M. (2004): 'Governance of Higher Education Institutions', *Vikalpa*, Vol. 29, No.2 (April – June), pp. 79-84.
- Planning Commission (2012): *The Twelfth Five Year Plan*, GOI, New Delhi.
- Prakash, Ved (2007): 'Trends in growth and financing of higher education in India', *Economic and Political Weekly*, 04 August.
- Prakash, Ved (2011): 'Concerns about autonomy and academic freedom', *Economic and Political Weekly*, 16 April
- Rani, Geetha (2002): *Financing Higher Education in India in the Post Reform Period: Focus on Access and Equity*, Occasional Paper No. 31, NUEPA, New Delhi.
- Rao, Sudha, George Mathew and S.K. Samantray (1999): *Autonomous colleges and non-autonomous colleges: selected case studies*. New Delhi: Vikas.
- Salmi, Jamil (2009): *The Challenge of Establishing World-Class Universities*. Washington DC: The World Bank.

- Sharma, G.D. (2001): *Trade in Education services under WTO*. New Delhi: NIEPA (mimeo).
- Singh, Amrik (2004): *Fifty Years of Higher Education in India: The Role of the University Grants Commission*. New Delhi: Sage.
- Srivastava, Aarti and Mona Khare (2012): *Skills for employability: South Asia*, Results for Management Institute.
- Thorat, S. (2008): "Emerging Issues in Higher Education" in UGC: University Grants Commission 2008 *Higher education in India: Issues related to expansion, inclusiveness, quality and finances*, New Delhi, UGC, pp.1-26.
- Tilak, J.B.G. (1994): "The pests are here to stay: Capitation fee in disguise", *Economic and Political Weekly*, Vol. 29, No.7, pp.348-50.
- Tilak, Jandhyala B.G. (2004): 'Public Subsidies in Education in India', *Economic and Political Weekly*, January 24, pp. 343-359.
- Tilak, J.B.G. (2014): 'Private Higher Education in India', *Economic and Political Weekly*, 04 October.
- Trow, Martin (2006): Reflections on the transition from elite to mass to universal access: Forms and phases of higher education in modern societies since WWII, in James J.F. Forest and Philip G. Altbach (eds.) *International Handbook of Higher Education*. Springer: Dodrecht
- UNESCO Institute of Statistics: *Global education digest*, Montreal: UIS
- University Grants Commission (2003): *Establishment of and Maintenance of Standards in Private Universities Regulations 2003*, New Delhi: UGC.
- University Grants Commission (2009): *Report of the Committee for review of existing institutions deemed to be universities*. New Delhi: UGC.
- Varghese, N.V. (2012): "Higher education reforms and revitalization of the sector", *Higher Education Forum*, (Hiroshima University), Vol.9, pp. 45-59.
- Varghese, N.V. (2013a): "Private higher education: The global surge and Indian concerns" , in *India Infrastructure Report 2012: Private sector in education*, London and New Delhi, Routledge Taylor and Francis Group (IDFC), pp. 145-156.
- Varghese, N.V. (2013b): 'Globalization and higher education', *Analytical Reports on International Education*, Vol.5, No.1, pp. 7-20.
- Varghese, N.V. (2014): *Diversification of Post-Secondary Education*. Paris: IIEP/UNESCO.
- Varghese, N.V. (2015): 'BRICS and international collaborations in higher education in India', *Frontiers of education in China*, vol. 10, no.1, pp. 46-65.
- Varughese, R. (2006): 'Privatization of public assets in higher education: Emerging trends in private aided colleges in Kerala'. *Journal of Educational Planning and Administration*, vol. 20, no.3, pp. 313-320.
- World Bank (2012): *Putting Higher Education to Work Skills and Research for Growth in East Asia*. Washington DC: The World Bank.

## ➔ About the paper

The unprecedented expansion of the sector from the turn of the century helped India enter a stage of 'massification' of higher education. The paper shows that while the fast expansion of higher education in India traditionally depended largely on public institutions and state funding, the accelerated growth of the sector in the present context relies more on market forces - private institutions and non-state funding. This paper further discusses the implications of 'massification' of higher education for improving access, equity and quality, diversification of study programmes and sources of funding, and governance and management to regulate the system.

## ➔ About the author

Professor N.V. Varghese is currently the Director of the Centre for Policy Research in Higher Education (CPRHE/NUEPA), New Delhi. Prior to joining the Centre, he was Head of Governance and Management in Education at the International Institute for Educational Planning (IIEP/UNESCO), Paris. He has published many books and several articles on issues related to educational planning, governance, management and financing of higher education.

*Editors*

N. V. Varghese and Malish C. M.