



Mapping the Distribution of Distance Education Provision for promoting National Development in India

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ABSTRACT :

One of the developmental goals of countries like India is not only ensuring literacy for all but also access to education irrespective of geographical disparities. Although India has a literacy rate of 65.38 %, this rate varies from state to state from a minimum of 47.53% in Bihar to a maximum of 90.92% in Kerala. In terms of literacy level, the State of Maharashtra has the highest enrolment in higher education and also the highest number of colleges, while the State of Sikkim has the lowest enrolment and the lowest number of colleges in conventional mode. Interestingly, the state with the highest literacy does not have the highest number of colleges or highest enrolment. In distance education mode, Indira Gandhi National Open University (IGNOU), with nationwide access to all along the length and breadth of the country, has an enrolment pattern among the various states which fairly closely mirrors the state-by-state pattern in enrolment in conventional-mode higher education. In 2005-06, Jharkhand State had the highest enrolment at IGNOU, while Arunachal Pradesh had the lowest. Hence there is a need to evolve an educational developmental mechanism that would ensure more equal access to education in the various states irrespective of differences in literacy and conventional infrastructure. In this paper, we present a state-by-state profile of India on the parameters of literacy, higher education and infrastructure - in both modes. Also we present a road map for development of distance education set up in collaboration with conventional mode in the so-far-inaccessible areas as indicated by the analysis.

1. INTRODUCTION :

India, with a population of over one billion has been making continuous efforts towards sustainable development in all the spheres of the society through progress in all the sectors. Significant changes have been brought in the society through various modes, and education remains one of the primary media for accomplishing the developmental objective. In pursuit of this objective, the government has been establishing a number of educational institutions at all levels i.e. at school and at higher education level. It has been very supportive towards all organizations including private and non-governmental

organizations which are in this sector for extending education to the masses.

Since independence, India has achieved a phenomenal growth in literacy rate moving from a mere 18.33% in 1951 to 64.84% in 2001. This has led to a large increase in the number of students at all levels including at higher education level. In the past 20 years, development in its education infrastructure and related field has also had a positive impact on students opting for higher education. So the number of educational institutions now established to cater to all spheres of society has been rapidly increasing along with this rise in the number of students enrolled. Besides making efforts to increase the number of

educational institutions, the government has also been making efforts towards diversifying the ways and means of providing education both at the school level as well as at the higher level. The mode of delivery of education has developed more so in the distance-mode system than in the conventional traditional-mode. However, the infrastructure for both modes are still being developed and further improved so that the reach of education can be extended throughout the country ; thus, reducing regional disparities and contributing towards achievement of equality among the people which is one of the developmental goals of the nation.

2. METHODS AND RESULTS :

In this study we have collated data to present the regional profiles of education throughout India, and report a state-by-state analysis for discussion.

India has 29 states and 6 union territories with a wide network of institutions both governmental as well as non-governmental which have been very actively involved in imparting basic and higher education to the people of all segments of society. These institutions have made efforts to ensure adequate reach and spread of not only literacy but also have tried to impart education to the people. In 1983-84, there were only 3,307,649 students enrolled in higher education. This number has risen to 9,953,506 in 2003-04 : showing a growth rate of 200% over the past 20 years - which means an average growth per year in enrollment in higher education has been about 10%. If we look at the number of institutions providing higher education, we see that this too has achieved a significant growth. In 1980-81, the number of institutions was 7073, rising to 10,406 in 2000-01, showing a growth rate of 47% over 20 years and an average growth rate per year of approximately 2.4%. Apart from this vast infrastructure of educational institutions providing education through the conventional mode, there have been significant developments in determining suitable alternative modes of providing

education. Part of this has been the onset of the establishment of open and distance learning institutions in the country. At present, 11 national and state open universities and a network of distance education institutions (DEIs) are catering to the need for education in India. If the percentage share of students in DEIs to conventional mode is taken into account then it was 13.29% in 1999 and rose to 15.48% in 2003. The average number of students per educational institution is 554 students per institution in conventional mode, and 17,540 per institution in the distance-mode education system, in 2003.

In a comprehensive analysis, the state-by-state data are given in Table 1a and Table 1b, presenting the literacy rate, enrolment in conventional mode and distance education mode, along with the related infrastructural such as the number of institutions, regional centres, study centres, academic and non-academic strengths.

As seen in these Tables 1a and 1b, the state of Kerala has the highest literacy rate of 90.9% while Bihar state has the lowest rate of literacy of 47%.

The enrolment (2003-04) in higher education in conventional mode is highest in Maharashtra State at 1,359,896 students, followed by Uttar Pradesh with 1,293,209 students. The state with the lowest total number (4,459) of students is Sikkim. However, the number of educational institutions providing higher education is highest in Maharashtra, and lowest in Sikkim.

Hence the states with the higher numbers of educational institutions have enrolled the higher numbers of students irrespective of their literacy rates. In distance education mode, India has 10 state open universities (SOUs) and one national open university which is Indira Gandhi National Open University (IGNOU). Whereas the SOUs have jurisdiction over education in their respective states, IGNOU caters to the educational needs across the length and breadth of the country. To present more informative data, in this study we present the enrolment at IGNOU in a state-by-state way for a comprehensive profiling of education.

Table 1a : Regional Profile of Education in India

State / UT	Conventional Mode				Distance Mode			
	Literacy Rate %	Total Enrolment	Colleges	Universities	Number		Enrolment	
					Open Universities	DEIs	Open Universities	DEIs
Andhra Pradesh	60.5	822,877	2,046	21	1	11	128,391	129,102
Arunanchal Pradesh	54.3	5,514	11	1		0	0	0
Assam	63.3	203,554	386	7		2	0	2,895
Bihar	47.0	524,110	661	12	1	2	1,906	400
Chattisgarth	64.7	155,372	317	5		1	0	1,717
Delhi	81.7	187,704	179	15	1	2	334,415	39,152
Goa	82.0	20,106	45	1		1		125
Gujrat	69.1	600,062	770	13	1	1	7,706	63
Haryana	67.9	251,027	264	8		3	0	72,043
Himachal Pradesh	76.5	94,081	108	6		1		33,558
J & K	55.5	69,207	160	3		2		4,270
Jharkhand	53.6	198,648	174	7		0	0	0
Karnataka	66.6	639,192	1,777	20	1	3	17,972	1,817
Kerla	90.9	297,393	573	9		4	0	36,448
Madhya Pradesh	63.7	53,7690	1,074	17	1	5	151,353	3,119
Maharastra	76.9	1,359,896	2,394	36	1	5	103,255	70,138
Manipur	70.5	36,732	77	2		0	0	0
Meghalaya	62.6	29,170	54	1		1	0	9
Mizoram	88.8	11,567	30	1		0	0	0
Nagaland	66.6	12,864	42	1		0	0	0
Orrisa	63.1	348,706	780	11		5	0	394
Punjab	69.7	265,629	416	10		2		1,686
Rajasthan	60.4	368,926	587	19	1	3	10,124	746
Sikkim	68.8	4,459	9	1		0	0	0
Tamilnadu	73.5	759,739	1,114	32	1	8	na	194,089
Tripura	73.2	20,198	22	1		1		638
Uttar Pradesh	56.3	1,293,209	1,997	28	1	3	4,246	2,465
Uttaranchal	71.6	12,511	207	7		1		
West Bengal	68.6	651,435	541	17	1	5	4,441	14,084
A & N Islands	81.3	2,020	4	0		0		
Chandigarh	81.9	37,490	27	2		1		14,146
Lakshdweep	86.7	228	1	0		0		
Daman & Diu	78.2	588	2	0		0		
D & N Haveli	57.6	0	0	0		0		
Pondicherry	81.2	19,182	36	1		1		14,212

Table 1b : Distance Education Infrastructure in India

State / UT	Open Universities						DEIs				IGNOU	
	Programmes	Regional Centres	Study Centres	Academic Counsellors	Teaching Staff	Admin Staff	Study Centres	Programmes	Teaching Staff	Admin Staff	2003-4 Enrolment	2004-5 Enrolment
Andhra Prad	25	23	14	5,344	89	356	249	377	140	483	127,701	12,948
Arunanchal										0	640	623
Assam							47	11	272	628	4,882	4,894
Bihar	22	0	7	452	6	36	4	5	67	53	31,749	30,794
Chattisgarth							na	12	32	23	3,037	3,529
Delhi	88	48	1,098	30,745	307	1,415	7	12	78	44	54,128	55,535
Goa							na	1	7	7		
Gujrat	17	3	78	979	39	45	na	na	4	na	13,333	14,892
Haryana							53	103	29	120	8,044	8,304
Himachal							4	26	41	106	3,812	3,972
J & K							5	11	9	32	8,209	8,918
Jharkhand											20,398	36,743
Karnataka	19	6	186	1,050	63	339	6	70	116	33	14,756	14,932
Kerla							82	57	609	128	9,461	9,705
Madhya P	77	10	1,070	8,000	36	20	99	18	25	32	5,585	6,597
Maharastra	78	8	1425	8,949	39	152	116	23	26	127	12,694	13,928
Manipur											1,500	1,671
Meghalaya							na	3	5	3	2,646	2,853
Mizoram							0	0	0	0	1,262	1,833
Nagaland							0	0	0	0	894	949
Orrisa							46	6	2	43	12,217	14,295
Punjab							42	43	249	130	10159	12,229
Rajasthan	33	6	52	2,465	30	224	622	126	55	107	11,113	10591
Sikkim							0	0	0	0	879	1129
Tamilnadu	23	0	23	875	20	35	245	413	301	845	23,699	26,071
Tripura							2	4	63	8	931	959
Uttar Prad	38	0	65	885	11	4	30	51	25	125	22,807	22,578
Uttaranchal							0	5	3	4	6,720	6,338
West Bengal	8	1	76	2,473	4	5	36	11	22	109	20,696	22,928
A & N							0	0	0	0		
Chandigarh							6	22	74	186		
Lakshdweep							0					
Daman & D							0					
D&N Haveli							0					
Pondicherry							na	31	3	50		

Amongst all the open universities (OUs) in 2003-04, IGNOU has the highest total enrolment, followed next by the state open university of Madhya Pradesh which has highest enrolment amongst the SOUs. Although, the enrolment in higher education through the conventional mode is highest in Maharashtra, the enrolment in the distance education mode is highest in Madhya Pradesh amongst the SOUs even though there is a SOU in Maharashtra. The state-by-state enrolment profile of IGNOU (2003-04) suggests that the highest enrolment is in the state of Delhi (having two regional centres), and lowest in the state of Arunachal Pradesh despite a fairly-high literacy rate there of 54.3%.

An effort has been made to present the relationship between the literacy rate and enrolment in higher education in the states and union territories of the country in Table 2, in order to determine those areas of the population which still remain unreached and present the impact of literacy on the current growth in higher education. Table 2 therefore orders the states and union territories in order of increasing literacy rate alongside the data of enrolment in open and distance education. The related data for enrolment in conventional-mode education are given state-by-state in Table 1a for further comparison.

From Table 2 on the following page, it is evident that there are 6 states / UTs which fall in the low-rate of literacy zone, while 18 show a moderate literacy rate, and the remaining are categorized as being in the high-rate of literacy zone.

In the low-rate literacy zone, the state of Uttar Pradesh has the highest enrolment in the distance mode (as well as in the conventional mode – Table 1a), while the IGNOU enrolment figure is highest in Bihar. It is also evident that these two states are two of the largest states in terms of population.

In the moderate-rate of literacy zone, the enrolment in conventional mode was highest in Andhra Pradesh (Table 1a), and the number of institutions in distance mode and the enrolment in the distance mode are also the highest in Andhra Pradesh. However in IGNOU, the enrolment is

highest in Tamil Nadu. Among those in the high-rate of literacy zone, Maharashtra tops the list with the highest enrolment in both the modes and the highest number of institutions also. While the state of Delhi has the highest enrolment in IGNOU.

While profiling the infrastructure of distance education in the various states, we have ranked the states into three arbitrary different categories or zones. This categorization can help indicate which states have the higher potential for distance education mode, a moderate potential or a low potential – depending on the current saturation level of education provided now. The potential has also been defined on the basis of the available infrastructure such as the numbers of practising teaching staff and the numbers of non-teaching administrative staff, the number of study centres, and number of programmes activated in terms of courses offered. Some of the states and UTs could not be included in the analysis because of the non-availability of data (data ‘not available’ is indicated in the cell concerned as ‘na’). This profiling is shown in Table 3.

As is evident from the data in Table 3, there are six states in the high potential zone, six states in the moderate potential zone and 13 states in the low potential zone.

Amongst those high-potential states, Rajasthan tops the list, while Kerala is at the bottom. In the moderate-potential zone, Haryana is at the apex, while Uttar Pradesh has the least potential. In the remaining low-potential zone states, Delhi is at the top, whereas Gujrat is at the lowest position.

This analysis shows that the potential of distance education has no significant relationship with the literacy rate and the enrolment in higher education. This is an important finding and worthwhile taking into consideration when planning the promotion of education for national development.

Another analysis on the ranking of states is being done on two parameters :- the enrolment in the distance mode as a percentage of the combined total enrolment in both the modes, and the enrolment in IGNOU compared with the total enrolment.

Table 2 : The Literacy Rates and State-by-State Enrolment Profiles in India

Literacy Level Zone	States / UT	Literacy Rate %	Distance Mode				IGNOU	
			Number		Enrolment		2003-4	2003-4
			Open Universities	DEIs	Open Universities	DEIs	Enrolment	Enrolment
Low Literacy	Bihar	47.0	1	2	1,906	400	31,749	30,794
	Jharkhand	53.6		0	0	0	20,398	36,743
	Arunanchal Pradesh	54.3		0	0	0	640	623
	J&K	55.5		2		4,270	8,209	8,918
	Uttar Pradesh	56.3	1	3	4,246	2,465	22,807	22,578
	D&N Haveli	57.6		0				
Moderate Literacy	Rajasthan	60.4	1	3	10,124	746	11,113	10,591
	Andhra Pradesh	60.5	1	11	128,391	129,102	12,701	12,948
	Meghalaya	62.6		1	0	9	2,646	2,853
	Orrisa	63.1		5	0	394	12,217	14,295
	Assam	63.3		2	0	2,895	4,882	4,894
	Madhya Pradesh	63.7	1	5	151,353	3,119	5,585	6,597
	Chattisgarh	64.7		1	0	1,717	3,037	3,529
	Nagaland	66.6		0	0	0	894	949
	Karnataka	66.6	1	3	17,972	1,817	14,756	14,932
	Haryana	67.9		3	0	72,043	8,044	8,304
	West Bengal	68.6	1	5	4,441	14,084	20,696	22,928
	Sikkim	68.8		0	0	0	879	1,129
	Gujrat	69.1	1	1	7,706	63	13,333	14,892
	Punjab	69.7		2		1,686	10,159	12,229
	Manipur	70.5		0	0	0	1,500	1,671
	Uttaranchal	71.6		1			6,720	6,338
Tripura	73.2		1		638	931	959	
Tamilnadu	73.5	1	8	na	194,089	23,699	26,071	
High Literacy	Himachal Pradesh	76.5		1		33,558	3,812	3,972
	Maharastra	76.9	1	5	103,255	70,138	12,694	13,928
	Daman & Diu	78.2		0				
	Pondicherry	81.2		1		14212		
	A&N Islands	81.3		0				
	Delhi	81.7	1	2	334,415	39,152	54,128	55,535
	Chandigarh	81.9		1		14,146		
	Goa	82.0		1		125		
	Lakshdweep	86.7		0				
	Mizoram	88.8		0	0	0	1,262	1,833
	Kerala	90.9		4	0	36,448	9,461	9,705

Table 3 : The Distance Education Infrastructure and the Related Potential

Potential	States / UT	Number			
		Study Centres	Programmes	Teaching Staff	Non-Teaching Administrative Staff
High Potential	Rajasthan	622	126	55	107
	Andhra Pradesh	249	377	140	483
	Tamilnadu	245	413	301	845
	Maharashtra	116	23	26	127
	Madhya Pradesh	99	18	25	32
	Kerala	82	57	609	128
Moderate	Haryana	53	103	29	120
	Assam	47	11	272	628
	Orrisa	46	6	2	43
	Punjab	42	43	249	130
	West Bengal	36	11	22	109
	Uttar Pradesh	30	51	25	125
Low Potential	Delhi	7	12	78	44
	Karnataka	6	70	116	33
	Chandigarh	6	22	74	186
	J&K	5	11	9	32
	Himachal Pradesh	4	26	41	106
	Bihar	4	5	67	53
	Tripura	2	4	63	8
	Pondicherry	na	31	3	50
	Chattisgarh	na	12	32	23
	Uttaranchal	na	5	3	4
	Meghalaya	na	3	5	3
	Goa	na	1	7	7
Gujrat	na	na	4	na	

As shown in Table 4, Himachal Pradesh tops the list with the largest number of distance education learners as a percentage of the total enrollment, with Andhra Pradesh having the second highest number enrolled, in the distance education mode. Delhi, has the highest enrolment in IGNOU, but has only the sixth highest position as a

percentage of the total enrolment in distance mode. Maharashtra State has the highest enrolment in the conventional mode, but is at only the seventh highest position in the distance mode. Whereas the state of Manipur has the lowest number of students enrolled as a percentage of the total enrolment in the distance mode.

Table 4 : The Number of Students in Distance Mode as Percentage of Combined Enrolment

State / UT	Number of Students			IGNOU		
	Conventional Mode	Distance Mode			2003-4	
		OUs	DEIs	%	Number	%
Himachal P	94,081		33,558	26.3	3,812	2.9
Andhra Pradesh	822,877	128,391	129,102	23.8	12,701	1.2
Madhya P	537,690	151,353	3,119	22.3	5,585	0.8
Haryana	251,027	0	72,043	22.3	8,044	2.4
Tamilnadu	759,739	0	194,089	20.3	23,699	2.4
Delhi	187,704		39,152	17.3	54,128	19.3
Maharastra	1,359,896	103,255	70,138	11.3	12,694	0.8
Kerala	297,393	0	36,448	10.9	9,461	2.8
J&K	69,207		4,270	5.8	8,209	10.0
Tripura	20,198		638	3.1	931	4.3
Karnataka	639,192	17,972	1,817	3.0	14,756	2.2
Rajasthan	368,926	10,124	746	2.9	11,113	2.8
West Bengal	651,435	4,441	14,084	2.8	20,696	3.0
Assam	203,554	0	2,895	1.4	4,882	2.3
Gujrat	600,062	7,706	63	1.3	13,333	2.1
Chattisgarh	155,372	0	1,717	1.1	3,037	1.9
Punjab	265,629		1,686	0.6	10,159	3.7
Goa	20,106		125	0.6		0.0
Uttar Pradesh	1,293,209	4,246	2,465	0.5	22,807	1.7
Bihar	524,110	1,906	400	0.4	31,749	5.7
Orrisa	348,706	0	394	0.1	12,217	3.4
Meghalaya	29,170	0	9	0.0	2,646	8.3
Uttaranchal	12,511			0.0	6,720	34.9
Sikkim	4,459	0	0	0.0	879	16.5
Arunanchal P	5,514	0	0	0.0	640	10.4
Mizoram	11,567	0	0	0.0	1,262	9.8
Jharkhand	198,648	0	0	0.0	20,398	9.3
Nagaland	12,864	0	0	0.0	894	6.5
Manipur	36,732	0	0	0.0	1,500	3.9

3. DISCUSSION :

In this section, we discuss and present a 'road map' that may be helpful for the development of distance education in hitherto inaccessible areas.

On the basis of the above analysis, a regional profile of enrolment and infrastructural have been presented, and some areas have been highlighted as those which have the potential for development of distance education, although as yet they have not been able to tap this potential. The strategies suggested here could be a kind of 'road map' for development of distance education in these areas and thus help to achieve the goals there of national and state development. The states with a high literacy but relatively less enrolment could be developed by adding more infrastructures so that higher education opportunities could be provided to the people of these states. Initiatives need to be taken for ensuring adequate collaboration between government institutions and private institutions so that the combined reach can be improved and better facilities can be provided to the people. Due assistance could be offered to

private institutions for establishing Centers of Excellence in higher education in the conventional mode as well as in the distance education mode.

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