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A Study of Relationship between Education Infrastructure and Economic Growth in Madhya Pradesh

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Abstract

The role of education in facilitating social and economic progress is well recognized. It opens up opportunities leading to both individual and group entitlements. Education, in its broadest sense of development of youth, is the most crucial input for empowering people with skills and knowledge and giving them access to productive employment in future. Improvements in education are not only expected to enhance efficiency but also augment the overall quality of life. Thus it seems the State is striving more and more for expanding higher education in Madhya Pradesh, however, the very foundation of higher learning, the primary education is still one of the major challenges for the government. The state still demonstrates slow pace in terms of performance on four basic variables used in computing Educational Development Index [EDI] at the primary level. But in-spite of only 4247 new government primary schools has been opened in 2008-09. And share of government schools to total school is increased by 0.20 percent only. Until and unless, the easy access, basic infrastructure & availability of quality teachers is not pledged at the primary level, the goal of universalization of education would remain a distant dream. Infrastructural misery of Madhya Pradesh is also depicted in the level of electricity connection in schools which demonstrate that only 10.74% primary and overall 20.56% schools are having electricity connections. Still there are large numbers of schools that are located in interior areas and are devoid of electricity. For a long time, poor performance on the basic schooling front was attributed to a lack of schools and teachers on the supply side, and poverty, parental attitudes, social barriers and prevalent social customs on the demand side. As noted earlier, significant progress has been made on both fronts. Recent research indicates that an important factor explaining both the high drop-out rates and also the persistence of out-of-school children is the stark fact that many of our schools are unattractive - physically and pedagogically. Giving adequate attention to the software of education and issues of quality is a must.

Keywords: *Education Infrastructure, Economic Growth, Improvements in education, poverty, Human capital*

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1. INTRODUCTION

Better educated people have a greater probability of being employed, are economically more productive, and therefore earn higher incomes. Education reduces poverty in rich and poor countries. Throughout the world it has been found that the probability of finding employment rises with higher levels of education, and that earnings are higher for people with higher levels of education. A better educated household is less likely to be poor. The impact of education on earnings and, thus, on poverty works largely through the labour market, though education can also contribute to productivity in other areas, such as peasant farming. In the labour market, higher wages for more educated people may result from higher productivity, but also perhaps from the fact that education may act as a signal of ability to employers, enabling the better educated to obtain more lucrative jobs. Middle-income countries – which frequently have well developed markets for more educated labour-are particularly likely to see the benefits of education translated into better jobs and higher wages. It was previously thought that the returns to education (the quantified benefits of investing in education) were highest at primary levels. This belief provided a strong case for expanding investment in primary rather than higher levels of education (**Psacharopoulos and Patrinos 2004**). However, new evidence seems more mixed. While some studies continue to show higher returns for primary education, there is now also linkages much evidence that investment in education at secondary or even tertiary levels which may bring even higher returns in some countries. This could indicate that returns to education vary with factors such as the level of development, the supply of educated workers, and shifts in the demand for such workers in the development process. It is well known that the demand for more educated labour rises as a country develops (**Murphy and Welch, 1994**). This increase in demand for highly skilled workers requires educational output to adjust accordingly, raising the relative returns to higher levels of education (**Goldin and Katz, 1999**). Nevertheless, the absolutely poor in developing countries usually have low education levels. Some may still not even have access to primary education or may not complete their primary education. Universal primary education is, therefore, crucially important to reduce poverty. However, there are also examples of countries where the rapid expansion of education has resulted in lowering education quality, suggesting that countries face a trade-off between quantity and quality in the short to medium term. In such cases, the impact of education on poverty reduction may be small, and a lot of effort must go into protecting and enhancing the quality of education. In developed countries there are sometimes groups of students who are excluded from the social mainstream. Some of the factors associated with this include poverty (especially relative poverty), language, ethnic minority status, or immigrant status (**Schnepf, 2004**). Although these factors may all separately contribute to social disadvantage and social exclusion, they often interact. Thus, social exclusion is a common feature of many educationally 'at risk' students, both poor and non-poor. Social mobility varies across countries in the developed world. Generally, education improves job prospects for poor groups, although upward social mobility is more difficult for groups that are also otherwise socially marginalized, such as immigrant communities or ethnic minorities. Even among such groups though, education lowers poverty, but the returns to education may be smaller than for non-minority members due to discrimination.

2. ECONOMIC DEVELOPMENT & HUMAN CAPITAL

An approach is to assume that all the benefits from investing in education are internalized in the performance of the economy over the medium-term. In other words, if the education of one person improves his or her own productivity as well as that of co-workers; if education improves personal and community health, leading to increased labor productivity, or indeed produces the same effect through any of the other routes, the aggregate impact is likely to show up in the long-term performance of the economy. In this interpretation, the relation between education investments and economic performance at the country level represents the "reduced form" effect of all the separate influences of education on economic productivity broadly defined. We chose the approach to estimate the full benefits of investing in education. There is positive relationship between schooling investments and economic growth. The investment made by governments and private body in education and health which cause creating pool of skilled human resources. This skilled human resource increase their productivity through using their competencies, knowledge, talents they do the innovation which enhances the efficiency and productivity.

Table-1.1: Represents Net State Domestic Product at Current Prices .In 1999-2000 in Madhya Pradesh net domestic product at current prices were Rs. 72655 Crore which increased to Rs. 93654 crore. The increase in comparison of previous year was 3.06%. Consequently, the growth in 2004-2005, 2005-2006, 2006-2007, 2007-2008, 2008-2009 and 2009-2010 were Rs.93654 Crore, Rs.102796 Crore, Rs.115783 Crore, Rs. 130722 Crore, Rs.150296 Crore and Rs.170428 Crore respectively. The growth percentage in comparison with previous years was 9.76%, 12.63%, 12.90%, 14.97%, and 13.39% respectively. The state of Kerala which has invested in education and health has shown the higher growth rate in Net State Domestic Product at Current Prices. It is reflected by the table that investment made in education and health created the skilled human resources which contributed in growth. . All India Net State Domestic Products at Current Prices in 2004-05 was Rs.2646370 crore which is increased in 2009-10 Rs.5221199 crore. The average growth in comparison of previous year is above two digits. In six years All India Net State Domestic Product has increased just doubled. Major Contribution in net domestic product is made by skilled human resources. Service sectors contribution in the net domestic product is near about 55%.

Table: 1.1 Net State Domestic Product at Current Prices (Rs in Crore)

S. No.	State/UT	1999-2000	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-10
1	Gujarat	92541	155184 *8.88	187223 *20.65	218898 *16.92	255780 *16.85	281266 *9.96	NA NA
2	Kerala	61359	95572 *12.79	109554 *14.63	126842 *15.78	145235 *14.50	167469 *15.31	NA NA
3	Madhya Pradesh	72655	93654 *3.06	102796 *9.76	115783 *12.63	130722 *12.90	150296 *14.97	170428 *13.39
4	Uttar Pradesh	156809	217577 *8.54	241922 *11.19	271532 *12.24	310334 *14.29	359836 *15.95	428386 *19.05
5	Delhi	51175	83861 *14.45	96492 *15.06	114497 *18.66	132052 *15.33	152403 *15.41	NA NA
6	All India NDP (99-00 base)	1605104	2548660 *12.87	2902074 *13.87	3342347 *15.17	3811441 *14.03	4353400 *14.22	NA NA

7	All-India NDP(2004-05 base)		2646370	3032585 *14.59	3516950 *15.97	4051770 *15.21	4653421 *14.85	5221199 *12.20

Source: Economic Survey 2010-11.

Note: * Represents % growth over previous year.

Table: 1.2 Per Capita Net Domestic Product at Current prices (Rs in Crore),

S. No.	State/UT	1999-2000	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
1	Gujarat	18864	28846 *7.15	34264 *18.78	39459 *15.16	45433 *15.14	49251 *8.40	NA NA
2	Kerala	19461	29071 *11.82	33044 *13.67	37947 *14.84	43104 *13.59	49316 *14.41	NA NA
3	Madhya Pradesh	12384	14471 *1.15	15596 *7.78	17257 *10.65	19149 *10.96	21648 *13.05	24146 *11.54
4	Uttar Pradesh	9749	12196 *6.44	13302 *9.07	14651 *10.14	16436 *12.18	18710 *13.83	21874 *16.91
5	Delhi	38913	54505 *11.23	60951 *11.83	70283 *15.31	78790 *12.10	88421 *12.22	NA NA
6	All-India Per Capita NNI) (1999-00 base)	15881	23198 *11.15	26003 *12.09	29524 *13.54	33283 *12.73	37490 *12.64	NA NA
7	All-India NNI(2004-05 base)		24095	27183 *12.81	31080 *14.33	35430 *13.99	40141 *13.30	44345 *10.47

Source: Economic Survey 2010-11.

Note: * Represents % growth over previous year.

Table 1.2 represents per capita Net Domestic Product at Current Prices. In 1999-2000 in Madhya Pradesh per capita net domestic product at current prices were Rs. 12384 which increased to Rs. 14471 in 2004-5. The increase in comparison of previous year was 1.15%. Consequently, the growth in 2004-2005, 2005-2006, 2006-2007, 2007-2008, 2008-2009 and 2009-2010 were Rs.14471, Rs.15596, Rs.17257, Rs. 19149, Rs.21684 and Rs.24146 respectively. The growth percentage in comparison with previous years was 1.15%, 7.78%, 10.65%, 13.05%, and 11.54% respectively.

Madhya Pradesh has registered increase in per capita income over the last year. As per the advance estimate of M.P. Directorate of Economic and Statistics for year 2009-10 the per capita income of the state on constant price has gone up to Rs. 15929, which represents an increase of 6.78 percent. After revised estimates are received the per capita income is likely to further increase. As per the quick estimate of year 2008 the per capita income of Madhya Pradesh was Rs. 14918,

Madhya Pradesh has posted a constant increase in per capita income over last six years. The per capita income in year 2003-04 was Rs. 11870 which rose to Rs. 12712 in year 2004-05. It further increased to Rs. 12032 in years 2005-06 and to Rs. 13307 in years 2006-07. The per capita income increased from Rs. 13943 in years 2007-8 to Rs. 14918 in years 2008-09.

On current price the per capita income of Madhya Pradesh has posted an increase of 11.54 percent over last year from Rs. 21000 to Rs. 24146 as per advance estimate of year 2009-10. The per capita income on current price has also constantly increased over last six years in Madhya Pradesh.

In year 2003-04 the per capita income on current price was Rs. 14306 which went up to Rs. 14471 in year 2005-06. It rose to Rs. 17257 in years 2006-07 and to Rs. 19149 in year 2007-08. The per capita income was registered at Rs. 21648 in years 2008-09.

A look at the state-level data enables one to identify areas that contribute largely to India's poor performance. Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh were once referred to as BIMARU states since they were lagging in terms of development and retarding India's overall economic progress. Though, the concept of BIMARU barely holds together now, particularly with the current upsurge in Bihar's economy, the fact remains that these states continue to have a low per capita income. According to the recent CSO estimates, while the per capita income in India in 2009-10 is estimated at Rs 46,492, in Bihar it is merely Rs 16,119. Bihar continues to trail way behind Uttar Pradesh, which has the second lowest per capita income of Rs 23,132. Manipur, Madhya Pradesh and Assam are the other three states with per capita incomes of less than Rs 30,000 per annum. Rajasthan is relatively better off than these states with per capita income of Rs 34,189, though this is still lower than the national average.

3. LITERACY IN INDIA AND MADHYA PRADESH

Table 1.3 Percentage of Literates to Population age 7 Years and above by India, Madhya Pradesh

	1991			2001			2011			Gains in literacy rates (LR2011-LR 2001)		
	P	M	F	P	M	F	P	M	F	P	M	F
India	52.2	64.1	39.3	65.2	75.6	54.0	74.04	82.14	65.46	8.84	6.54	11.46
M. P.	44.7	58.5	29.4	64.1	76.8	50.3	70.6	80.5	60.0	6.5	3.7	9.7

Source: (1) RGCCI 2001 (2001a: 123-27), (2) Census 2011

Chart 1.1

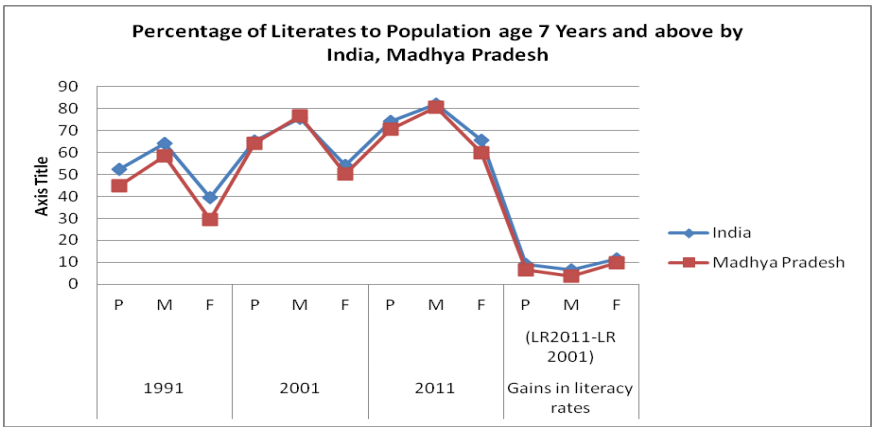


Table 1.4: Plan expenditure on Different sectors of education in Madhya Pradesh

(Rs. In Lakhs), Source: Planning Commission.

S.No.	Different sectors of education	Ninth plan (1997-02)	Tenth Plan (2002-07)	Eleventh Plan (2007-12)
1	School/general Education	180197	149380	493638.9
2	Adult Education	*	7500	*
3	Higher Education	*	17125	26118.0
4	Technical Education	9061	12860	36735.0
5	Sports &Youth	1986	2750	12500.0
6	Language	1986	1914	3454.0
7	Total Education Sector	193230	178669	572445.9
8	% of education to total plan expenditure	9.62	6.94	8.2

Note:* Included under elementary education.

Table 1.3 emerged that the allocation of plan outlay to education in different plan period. In ninth plan the state Govt. has allocated total of Rs.1932300 lakhs in which for general education including school, adult and higher education it was Rs. 180197 lakhs. For technical education there was a provision of Rs. 9061 lakhs. The percentage of total plan outlay to education was 9.62%. In tenth plan it shows that education priority has declined because the total plan outlay for education has decreased in comparison with ninth plan it became Rs. 178669 lakhs which is less than the amount allocated for education in ninth plan period the percentage of education to the total plan outlays is also declined in comparison with ninth plan period. It is 6.94% in eleventh education has been given.

The priority specially higher and technical education has been focused for skill development. In eleventh plan the plan outlay for education is Rs. 572445.9 which is much higher than the ninth and tenth plan outlays the percentage to total plan outlay is 8.2% in eleventh plan elementary education has been allocated Rs.493638.9 lakhs which is 86.2% of the total plan outlay for

education, which reflect that the state has focus to the elementary education to increase the literacy level.

Table-1.5: Growth in Educational Institutes in Madhya Pradesh

Educational Institutes	Madhya Pradesh		India	
	1999-2000	2008-09	1999-2000	2008-09
Primary	91733	97900	641695	787827
Middle	23340	39227	198094	325174
High School/Higher secondary	9277	9672	116820	172990
Colleges for General Education	413	871	7782	13381
Professional Education	78	564	2124	11136
Universities/Deeded Uni / Inst. of national importance	18	19	244	524

Source: 1. Statistics of school education 2007- 08 and 2008-09.

2. Statistics of higher and technical education- 2007 – 08.

3. Ministry of Human Resource Development, Govt. of India.

Note: (a) Professional education includes engineering, technology and architecture, medical (allopathic/Ayurvedic/homeopathy/Unani/nursing/Pharmacy, etc.) and teacher training colleges.

Chart 1.2

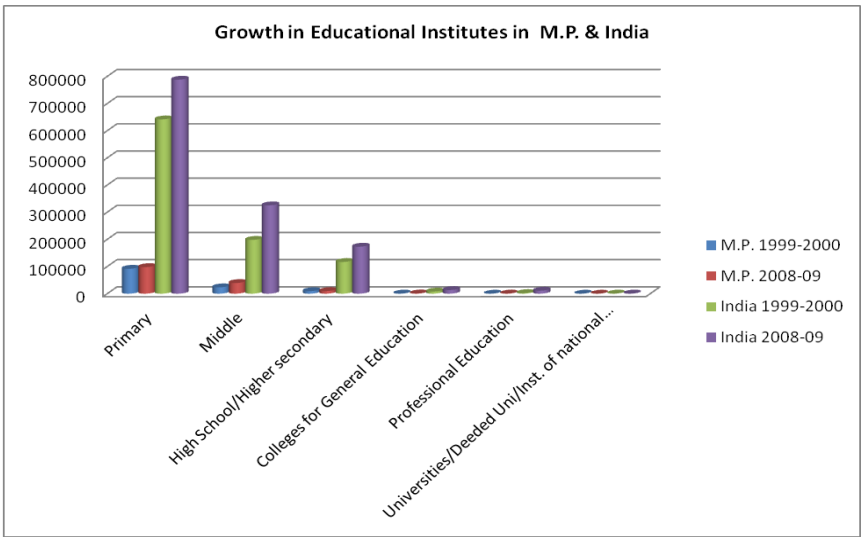


Table 1.5 and chart 1.2 indicates the educational institutional infrastructure growth in the state has had a very significant progress which contributes in the literacy of the population knowledge, and skill formation. The primary educational institutes have increased from 91733 in 1999-2000 to 97900 in 2008-09. In the Upper Primary or Middle Institutions has shown tremendous growth in the state. In 1999-2000 the numbers of middle schools were 23340. Presently, it has increased by 39227. Secondary & Higher secondary educational institutes in 1999-2000 were 9277 which increased and became 9672 in 2008-09. In the state there were only 413 colleges for general education presently the number has increased and became 871. Similarly, the colleges for professional education in 1999-2000 were 78 now it became 564. The increase in the professional

education is 7 times in ten years. This reflects that there is a tremendous increase in professional education in the state which is imparting education for making the skills and creating the knowledge. In the same manner there were 18 universities/deemed universities/ institutes of national importance in 1999-2000. Presently this number increased and became 19 which show the little increase the universities.

Table-1.6: Gross Enrolment Ratio in Classes I –V, VI – VIII And Classes I – VIII

States/ union territories	All categories of students								
	Classes I – V (6 – 10 years)			Classes VI – VIII (11 – 13 years)			Classes I – VIII (6 - 13 years)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Madhya Pradesh	154.5	152.3	153.4	104.2	95.5	100.0	135.7	131.1	133.5
India	115.3	112.6	114.0	81.5	74.4	78.1	102.4	98.0	100.3

Source: Statistics of school education 2007 – 2008

Chart 1.3

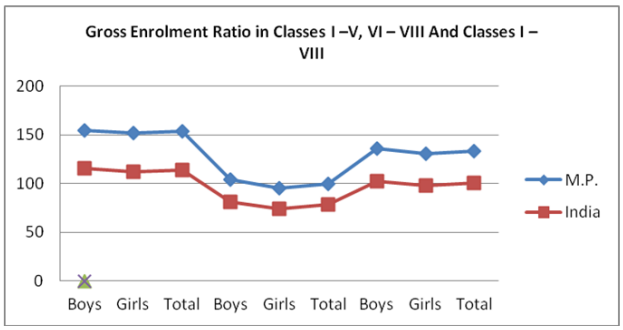


Table 1.6 and chart 1.3 shows that In India Gross Enrollment Ratio (GER) of boys has raised from 96.2%, in 2000-01 to 115.3% in 2008-09 at primary level in which enrollment ratio of girls has risen from 92.3 in 2000-01to112.6% and overall increase in primary level is 114.0%. In upper primary level there is also significant increase in the enrollment which becomes 78.1%. The total enrollment in elementary in the age group (6-13) has increased and become 100.3%. There has been a significant increase in GER of girls, SC & ST categories at the elementary level. The number of out of school children has decreased from 13.28 lakhs in 2001 to 1.64 lakh in 2008-09. The effectiveness of universal enrollment is eroded by drop outs and, therefore, special efforts have been made to reduce the drop outs by improving infrastructure facilities, providing teachers, enhancing teacher quality, improvised teaching-learning strategies, targeted incentives, involving community, effective monitoring, etc. Though these efforts succeeded in decreasing the Dropout Rate substantially to 14.9% at primary level in 2008-09 (from 21.4% in 2004) and a lot is yet to be done in this respect. Madhya Pradesh has shown very convincing improvement in enrollment in primary level as well as at upper primary level. The total enrollment ratio in primary level is 153.4% in which girl's enrollment is 152.3%. In upper primary level total enrollment ratio is 100%. Total elementary level enrollment is133.5%.

4. APPRAISAL OF ELEMENTARY EDUCATION IN SOUTH-WEST M.P:

Madhya Pradesh portraits collapsing picture in the Educational Development Index [EDI] on the performance and indicators at primary level education as articulated in the latest flash Statistics of

District Information System for Education [DISE] [1] report 2008-09 released by NUEPA 2. The DISE survey of 2008-09 in Madhya Pradesh includes 109757 government schools and 22592 private schools in all the 50 district of Madhya Pradesh.

1. Retention Rate at the primary level education decreased from 94.3 in 2007-08 to 75.14 in 2008-09
2. Infrastructure ranking of Madhya Pradesh for primary education slipped from 15th to 19th in 2008-09. No change in the access ranking for primary students in Madhya Pradesh {13 position}.
3. The availability of teachers at the primary level of education is below average with index scoring just 0.438 {32 rank} while it is 0.975 for Kerala {2nd rank}
4. 17.44 percentages of primary schools in the state are still having single teacher schools.
5. Though combined EDI ranking for primary & upper primary level step forward to
6. 25th position in 2008-09 from 07-08 but overall index for it is decreased from 0.590 to 0.578.

The EDI, which has four variables - access, infrastructure, teachers and outcomes - assigns scores and ranks to each of them for the primary and upper primary level and then draws up a composite index. South-West Madhya Pradesh slumps in three among these four variables pertaining to primary education. EDI ranges from 0.00 to 1.00.

Table-1.7: Education Development Index in MP& South –West M.P.

Component	**2005-06**		**2006-07**		**2007-08**		**2008-09**	
	Index	**Rank**	**Index**	**Rank**	**Index**	**Rank**	**Index**	**Rank**
Primary Level								
Access	0.634	5	0.593	8	0.554	13	0.561	13
Infrastructure	0.513	29	0.540	26	0.721	15	0.637	19
Teachers	0.320	33	0.355	33	0.446	30	0.438	32
Outcomes	0.570	12	0.492	25	0.546	29	0.699	18
Composite EDI	0.514	24	0.478	31	0.572	26	0.571	25
Upper Primary Level								
Access	0.548	10	0.590	20	0.694	19	0.722	17
Infrastructure	0.531	29	0.581	27	0.764	20	0.698	19
Teachers	0.498	33	0.380	33	0.501	32	0.427	31
Outcomes	0.458	16	0.384	24	0.451	35	0.527	30
Composite EDI	0.509	29	0.483	31	0.607	26	0.585	26

Combined Primary & Upper Primary	Year	Index	Rank
	2005-06	0.512	29TH RANK
	2006-07	0.481	30TH RANK
	2007-08	0.590	26TH RANK

[1] *The District Information System for Education, DISE that was initiated in seven states in 1994-95 has now expanded to cover all 35 states and UT's. It provides information on various schools based inputs & processes as well some indicators related to outcomes.*

Level			
	2008-09	0.578	25TH RANK

Source: Statistics of District Information System for Education [DISE], Report 2008-09 released by NUEPA.

Access: Easy access of schools ensures more and more enrollment and retention of students in the schools. Under the access indicators, namely, percentage of un-served habitation, availability of schools per thousand child populations and ratio of primary schools to upper primary schools/sections has been used.

In the absence of coverage data of un-served habitation, the ratio of Primary schools to Upper primary schools/Sections has been used as indicator of access at Upper Primary level of education. Lower ratio means more availability of Upper Primary schools/sections for the existing primary schools. In 2008-09, the ratio of Primary to Upper Primary schools/sections had been lowered only by 0.14 from 2.62 to 2.48 which indicates low availability of upper primary schools in comparison to primary section.

Another vital access indicator is the availability of schools per 1000 child population which is static for last three years with the availability of only 13 schools/sections per thousand child populations? If we have to follow the student classroom ratio (SCR) equivalent to 40, then school should be minimum 25 schools/sections for per 1000 child population.

Infrastructure

At a time when the government is trying to increase enrollment in schools, especially for girls, EDI has brought to fore the lack of basic infrastructure with enormous downfall in all India ranking of Madhya Pradesh from 15th in 2007-08 to 19th in 2008-09. Though, we have made progress in the infrastructure development in 2006-07 and 2007-09 but 2008-09, showed reverse trend with the ED index decreased from 0.721 to 0.637. It means still quite large number of schools are running in lack of basic infrastructure and facilities. Infrastructure indicators includes average student classroom ratio (SCR) >40, availability of drinking water facility, common toilets and girls toilet facility in schools.

In Madhya Pradesh 26.67% primary schools are having SCR greater than 40 whereas Kerala which holds 3rd position in composite EDI is having average SCR of 7.85% only. Another distressing feature which hampers retention of girls in the school is the absence of separate toilets for girls in schools. There is girl's toilet only in 47.60 percentages of schools that decreases further to 41.30% in case of primary schools in the State.

Education in Madhya Pradesh schools is limited to text books and many of the youngsters who study here, have never even tried their hands on a Computer unlike the students in metro cities like Delhi who have grown up with computers, gadgets, and gizmos surrounding them. The average percentages of schools having computers have decreased to 10.38 in 2008-09 from 12.36% in 2007-08 while it is 85.84% for Delhi and 80% for Kerala.

Infrastructural misery of Madhya Pradesh is also depicted in the level of electricity connection in schools which demonstrate that only 10.74% primary and overall 20.56% schools are having

electricity connections. Still there are large numbers of schools that are located in interior areas and are devoid of electricity.

Teachers

Other important indicator is the ratio of teachers in the schools. In 2008-09, lack of teachers contributed further to dwindle the supply of quality education to students. The EDI rank on teacher's index slipped down from 30th position to 32nd position. 17.44% of primary schools in the state are still single teacher schools. In our state 41.47% upper primary schools have less than three teachers while it is less than 15% for Rajasthan, Bihar, Jharkhand and Gujarat; and only Uttar Pradesh (51.15%) scores higher than Madhya Pradesh. And there is only one percent downfall in the percentage of all schools having Pupil Teacher Ratio >60 i.e., from 17.53 in 2007-08 to 16.55 in 2008-09.

Output

The last set of indicators is related to outcome indicators amongst which gross enrolment ratio (overall, SC & ST) is the most important one. Average drop-out and repetition rates are other important outcome indicators. The Madhya Pradesh shows modest improvement in outcomes with EDI rank stepping forward to 30th from 35th.Though the outcome index shows positive trend both at primary and upper primary level ranking of Madhya Pradesh. But Gross enrollment ratio (GER) at primary level has also depicted ailing feature as it is decreased from 144.71 in 2007-08 to 143.91 in 2008-09. Contrary to this the gross enrollment ratio at upper primary has shown increasing trend with increment of 3.76 as GER for 2008-09 robust to 64.24 from 60.48 in 2007-08.

Though the Madhya Pradesh government has taken strides in enrolling children in schools but there have been blithe efforts in providing quality education to them thus leading to their retention in schools. Retention Rate at primary level is not very encouraging in Madhya Pradesh as it has decreased from 94.30 in 2007-08 to 75.14 during last year.

The state's commitment in providing quality education to all its children is clear from its mediocre performance delivery with no change in composite EDI rank at Upper Primary level (26th rank) and even combined position at primary & upper primary EDI escalation of one point from 26th rank to 25th position.

Thus, it seems the State is striving more and more for expanding higher education in Madhya Pradesh, however, the very foundation of higher learning, the primary education is still one of the major challenges for the government. The state still demonstrates slow pace in terms of performance on four basic variables used in computing Educational Development Index [EDI} at the primary level. But in-spite of only 4247 new government primary schools has been opened in 2008-09. And share of government schools to total school is increased by 0.20 percent only. Until and unless, the easy access, basic infrastructure & availability of quality teachers is not pledged at the primary level, the goal of universalisation of education would remain a distant dream.

Though the overall achievement in elementary education has shown some positive indicators in terms of increasing enrollment rates for boys and girls as well as increasing literacy rates the qualitative aspect seems to have gone ignored. The limited achievement have been the result both of reluctant increase in resources allocated to education and also due to programmes and schemes that focus on some of the specific lacunae in the educational infrastructure and the educational

system. One cannot remain contended by the mere numbers of achievement alone. Average statistics hide the unevenness of the achievements; moreover higher achievements quantitatively by no means imply adequacy of quality. NCE's concern is that the quality issue has remained ignored in the era of economic reforms, reflecting itself in phenomenon such as growth in number of Para-teachers recruitment inviting private sector in elementary education etc. It still remains to be seen how the successive governments and policy makers address the challenges of implementing and organizing many of the 'well –meaning' and 'normative' initiatives to promote the three key principles of equity, quantity and quality in the context of making India literate. India cannot shine and develop as a strong nation unless free and compulsory elementary education of an equitable quality is provided to all its children through a Common School System. History is evident that almost all countries which are today in the category of developed nations have adopted a Common School System.

Trends in Secondary& Higher Secondary Education

Secondary education serves as a bridge between elementary and tertiary education. It plays the dual role of preparing students for higher education while at the same time providing skills and technical training for those planning to enter the labour market. Demand for access to secondary education is growing as our state approaches universal elementary education. Due to rapid technological changes and growth of knowledge based industries, there is a heightened demand for a skilled labour force which can be provided by quality secondary education. The main aim of secondary education is to inculcate knowledge, and scientific outlook among students and nurture their talents and analytical skills to enable them to become socially and economically productive active citizens. This can be achieved by equipping schools with all basic amenities, including qualified and trained teachers, developing appropriate curriculum and syllabi and improving teaching techniques to reach the desired learning outcomes. Madhya Pradesh has been providing facilities for girls to continue their education through various Social Welfare schemes. Therefore, the pass percentage among girl students in higher secondary schools is more than that of boys. Even in terms of enrollment ratios, the difference between boys and girls is not high, and thus gender gap in school education has been largely reduced. Out of the total enrollment of 28.82 lakh is high in higher secondary schools, the proportion of enrollment of boys is 17.96 lakh and girls are 10.86 lakh.

Growth in Higher Education in M.P.

Table-1.8: Growth in Enrollment at Graduation and Post-Graduation level in MP.

Level	2005 – 06			2009 – 10		
	Boys	Girls	Total	Boys	Girls	Total
Graduate	130666	99179	229845	156799	123973	280772
Post Graduate	21466	20985	42451	25759	26231	51990
Total students	152132	120164	272296	182558	150204	332762

Source: Director Higher Education Bhopal, MP, 2011

Chart 1.4

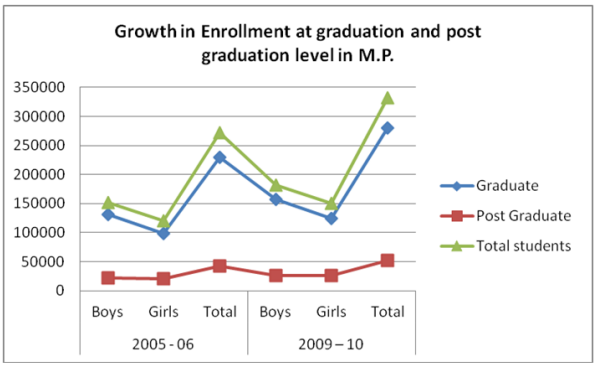


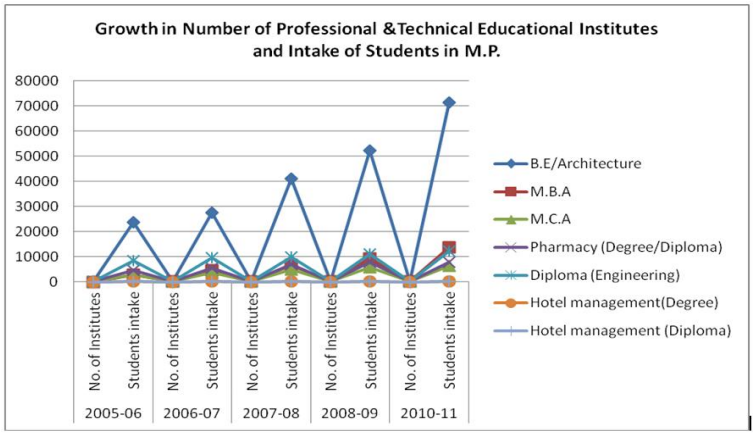
Table 1.8 and Chart 1.4 indicate the increase in the enrollment in undergraduate and post graduate programmes in the state. It shows that there is significant growth in enrollment in the state. In 2005 – 06 at graduation level the total enrollment were 229845 including 130666 boys and 99179 girls which increased in 2009 – 10 by 22% and became 280772 in which number of boys were 156799 and girls were 123973. Similarly, at post graduate level the growth in enrollment is also showing a convincing figure. 42451 students were enrolled in 2005 - 06 in post graduation programmes including 21466 boys and 20985 girls. In 2009 – 10 this number ass increased and become 51990 including 25759 boys and 26231 girls. This shows that in higher education at post graduation level the enrollment of girls has increased faster and it cross the number of boys enrolled in post graduation. There are number of state government schemes like gaon ki beti provide the facility and the awareness among the parents cause the increase in number of girl's enrollment. The total enrollment in higher education has increased from 272296 in 2005- 06 to 332762 in 2009 – 10.

Table-1.9: The details of the number of professional colleges with sanctioned intake and students admitted as on 2010-11 are given below:

Name of professional courses	**2005-06**		**2006-07**		**2007-08**		**2008-09**		**2010-11**	
	No. of Institutes	Students intake	No. of Institutes	Students intake	No. of Institutes	Students intake	No. of Institutes	Students intake	No. of Institutes	Students intake
B.E/Architecture	69	23794	86	27693	124	41259	159	52200	208	71400
M.B.A	42	2790	63	4600	91	6530	139	9410	208	13800
M.C.A	55	2925	67	3790	77	4830	91	5670	101	6370
Pharmacy (Degree/Diploma)	70	4570	93	5409	114	6850	131	7890	132	7950
Diploma (Engineering)	44	8479	44	9594	44	9830	44	11225	49	12115
Hotel management(Degree)	2	120	3	180	3	210	4	270	4	270
Hotel management (Diploma)	1	60	1	60	1	60	1	60	1	60

Source: Director Technical Education, Bhopal 2010 – 11

Chart 1.5



The above table 1.9 and chart 1.5 shows the growth of technical institution in the Madhya Pradesh in various disciplines. In 2005 – 06 there were 69 B.E/Architecture Institutions with 23794 intakes which increased by more than threefold and presently these are 208 with 71400 intakes. Similarly there is tremendous progress in Management of Business Administration colleges which was 42 with 2790 intake become 208 with 13800 seats. From which 56 colleges and 4470 seats are only in the Indore district. In the same manner the growth story in the number of colleges in master of compute application. There were only 55 colleges in 2005 – 06 with total intake of 2925 has doubled and become 101 with 6370 seats. In the same way the number of pharmacy colleges in the state were 70 with 4570 seats has raised and become 132 which reflect double growth in number of colleges as well intake. The intake has increased and became 7950. Table also reveals the growth picture in infrastructure of technical and professional courses like diploma in engineering, hotel management degree and diploma courses. There is also increase in the number of college as well as seats.

5. Conclusion:

Madhya Pradesh has registered increase in per capita income over the period. Per capita income of the state on constant price has gone up to Rs.15929, which represents an increase of 6.78 percent. After revised estimates are received the per capita income is likely to increase further. As per the quick estimate of year 2008 the per capita income of Madhya Pradesh was Rs.14918. Madhya Pradesh has posted a constant increase in per capita income over last six years. The per capita income in year 2003 - 04 was Rs.11870 which rose to Rs.12712 in year 2004 - 05. It further increased to Rs.12032 in years 2005-06 and to Rs.13307 in years 2006-07. The per capita income increased from Rs.13943 in years 2007-8 to Rs.14918 in years 2008-09. On current price the per capita income of Madhya Pradesh has posted an increase of 11.54% over last year from Rs.21000 to Rs.24146 as per advance estimate of year 2009-10. The per capita income on current price has also constantly increased over last six years in Madhya Pradesh. In year 2003 -04 the per capita income on current price was Rs.14306 which went up to Rs.14471in year 2005-06. It rose to Rs.17257 in years 2006-07 and to Rs.19149 in years 2007 - 08. The per capita income was registered at Rs.21648 in years 2008-09. It became Rs.24146 in 2009-2010.

The state has performed relatively better on Education front through its massive efforts for raising the literacy level from 45% to 64% during 1991 to 2001 and 64% to 70.6% during 2001 to 2011. This seems to have been attained by expanding the network of primary schools and adult literacy centers. This involved massive recruitment of Para-professionals (Shiksha Karmis) to teach in the schools. Initially a good move, the policy of Para-professionals seems to have created major stumbling blocks in the delivery of educational services for the last five years. The situation is very grim as it arose out of what may be called a quick fix solution for spearheading the drive for enhancing literacy levels in the state. The Para-professionals have more or less stopped attending to the schools in the wake of their pending demand-a salary hike and/or regularization of their services. What is in fact strange about this grim scenario is that no one in the villages, including the Panchayat and Shiksha Samitis, has formal platforms for voicing their demands for education in their respective villages.

This perhaps suggests a need to rethink over the entire issue of educational system, which may essentially require participation of the parents and community rather than involvement of the private sector for creating a parallel system for schooling and coaching classes that may create further divisions between the poor and the rest. Another key concern that has emerged is the quality of education. The available evidence suggests that in terms of the quality of education, Madhya Pradesh ranks the lowest amongst the states and Union Territories of the country, although the state has done relatively better in improving the infrastructure and facilities. In this context, they need to revise their approach for teacher recruitment and teacher development. The state also needs to focus on higher and technical education also as the only way to develop human resources is through higher and technical education only. The state record in this context remains far from satisfactory. Privatization of higher and technical education in the state has resulted in mushrooming of a large number of private institutions with grossly inadequate infrastructure and facilities and very little focus on research that contributes to improving the productivity of social and economic production system. State investment in the higher and technical education sector needs to be increased. At the same time regulatory mechanism for ensuring the quality and relevance of technical and higher education needs to be put in place.

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