



Inequalities in Secondary Education: A Study of Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

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Introduction:

Secondary Education is an important stage in the school education ladder as it equips students for higher education and the labour market. Besides helping students to choose different career avenues, secondary education has a far reaching effect in developing a clear understanding on the socio-economic and political issues. Further it helps in empowerment of the marginalized communities and strengthening of the democratic values (World Bank, 2005). However, in India, for the past several years the policy and financial priorities have been more in favour of elementary education. Now that India has achieved a near universalisation of elementary education, it is important that it focusses towards providing quality secondary education to its growing young population. With so many stakes on the secondary education it is important to have a holistic approach for secondary education that ensures accessibility, quality, equity and skills to match with the dynamic world of work.

To provide quality secondary education to all by 2017, *Rashtriya Madhyamik Shiksha Abhiyan* (RMSA) was introduced in 2009. Later, to address the issues of equity, vocationalisation in education and to bridge the digital divide among students of different backgrounds, four independent programmes viz. Information and Communication Technology in schools (ICT), Vocational Education (VE), Girls Hostels (GH) and Inclusive Education of the Disabled at Secondary Stage (IEDSS) were subsumed under the umbrella RMSA.

In India, classes IX and X are designated as the secondary levels (or lower secondary) and classes XI and XII as senior/higher secondary levels. The official age group for the secondary level is 14-16 years and for the higher secondary level it is 16-18 years. There are 12.4 crore children in the 14 to 18 years of age group, of which about 67 percent children attend educational institutes (Census, 2011). This achievement in itself is low when compared to other developing countries there are gaps on the basis of caste, gender, religion or place of residence. After six years of implementing RMSA, secondary education is still a distant reality for the marginalized sections of the society such as Schedule Castes (SCs), Schedule Tribes (STs), Muslims and women; who are underrepresented in secondary education as compared to their respective shares in the total population.

India's performance among BRICSAM Countries

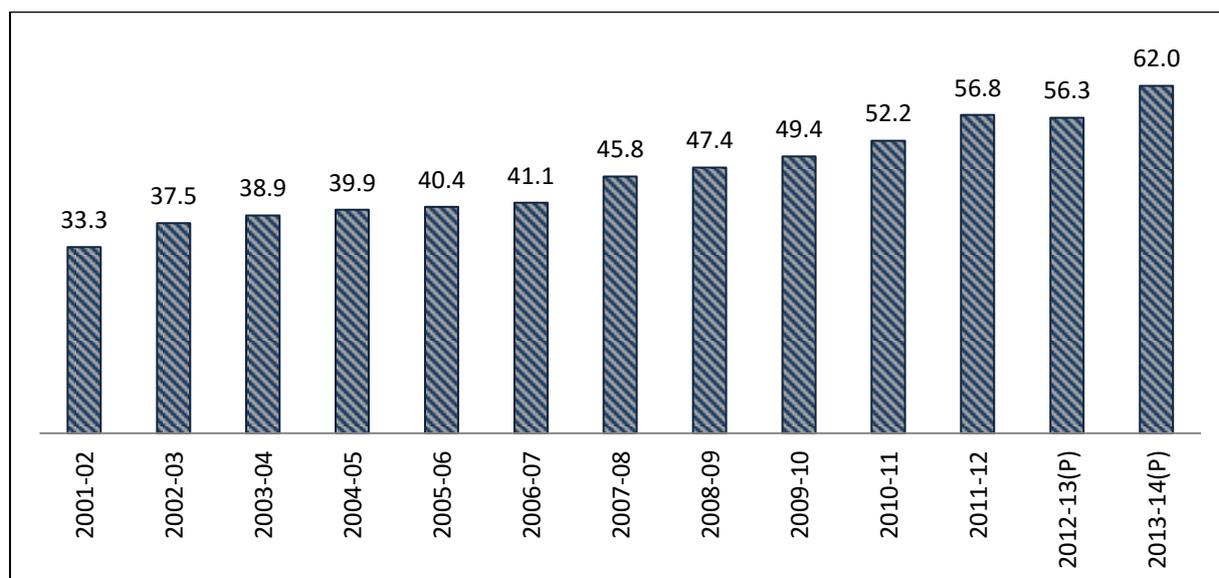
Status of Secondary Education

Over time, India experienced an increase in enrolment at secondary level (Figure 1). However, the picture looks dismal, if the Gross Enrolment Ratio (GER)¹ for India is compared with the rest of the BRICSAM² countries. GER is not an age specific enrolment, and hence shows a higher enrolment; this is because the GER also includes persons in other age groups enrolled at the secondary level. India still lags behind China, South Africa and Russia; while China, Russia and South Africa are about to achieve 100 percent GER, India stands far below, with a poor 69 percent GER at the secondary level (Figure 2)

¹ Total enrolment in secondary education (Grades IX-XII), regardless of age, expressed as a percentage of the eligible official secondary school-age population (14 to 18+ years) in a given school-year.

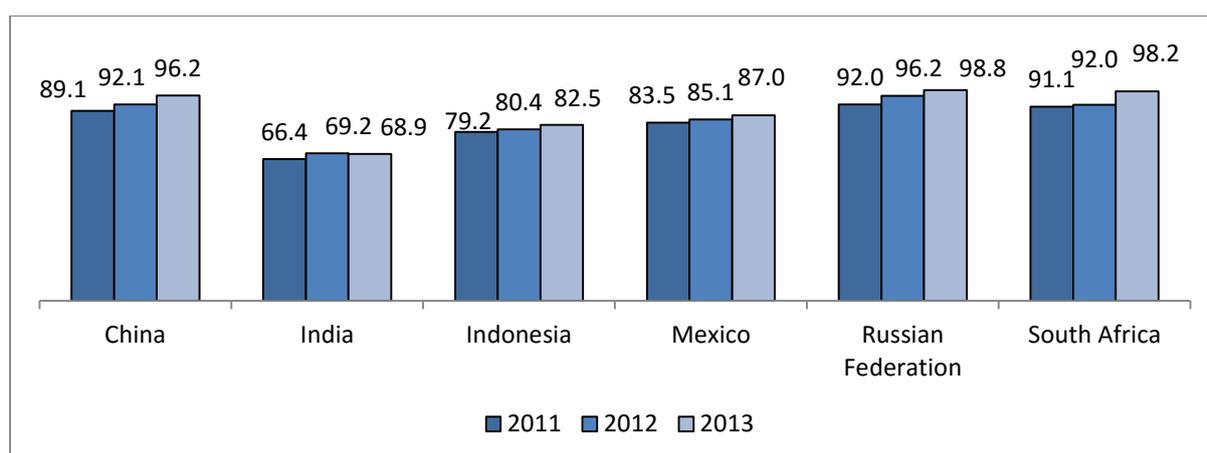
² BRICSAM stands for Brazil, Russia, India, China and South Africa, Mexico and Indonesia

Figure 1: Trends in Gross Enrolment Ratio (GER) at Secondary Education



Source: Educational statistics at a glance, MHRD, 2014

Figure 2: Gross Enrolment Ratio at Secondary Level of Education (in Percent)

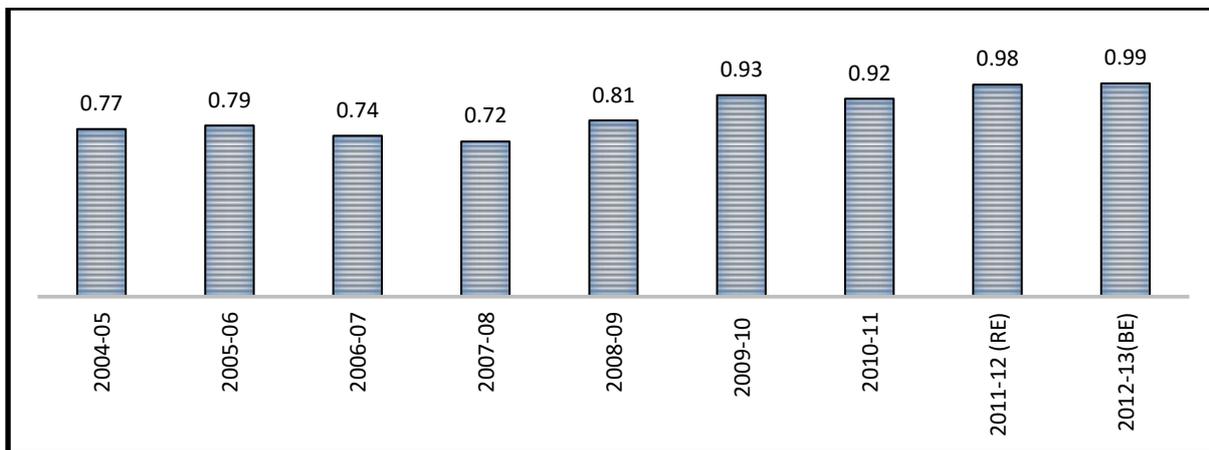


Source: UNESCO Database

Public Investment in Secondary Education

Public investment on education is an important factor that affects the quality of education. One of the reasons for India's unsatisfactory performance at the secondary level is the poor public spending on secondary education. In India education is a shared responsibility of both the Union and the State governments. Unlike The Right of Children to Free and Compulsory Education (RTE) Act, 2009, that mandates the government to provide free and compulsory elementary education to children from 6-14 years, there is no such legal obligation at the secondary level. In the absence of such a mandate, spending on secondary education is solely at the discretion of the government. Over the years the share of secondary education in country's GDP is less than one percent. Figure 3 shows that between 2004-05 and 2012-13(BE), India has been able to increase its spending on secondary education only by 0.2 percentage points of GDP.

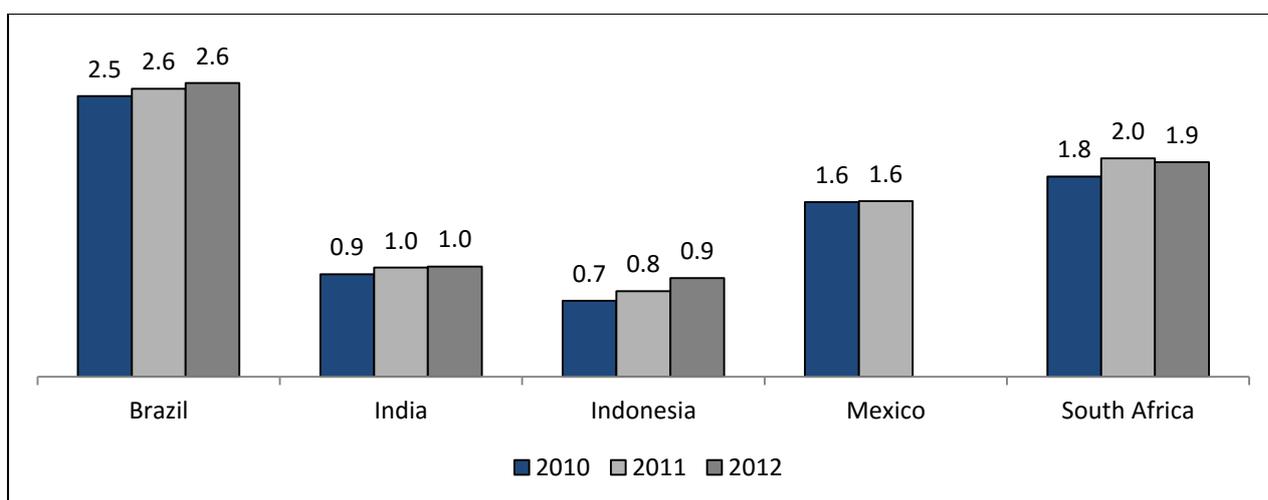
Figure 3: Trends in Public Expenditure on Secondary Education in India as percentage of GDP



Source: MHRD (2014)

Many developing countries, especially the BRICS countries, follow a similar pattern of responsibility in financing of school education. For example, Brazil provides longest period of mandatory public education (14 years from primary to upper secondary). Both the federal and state governments are responsible for financing of education, in which secondary education is financed by state governments. Russia has public provision for eleven years of mandatory education, encompassing primary to upper secondary level. This is mostly provided and funded by regional governments (provinces), even though performance-oriented funds are provided by the Central government. Like India, in China also, public provisioning of education is mandatory till elementary level (class I-VIII), government does spend at the secondary level but it is not mandate by any law. The public educational expenditure in China is borne by the central, provincial as well as the county governments. Similarly, South Africa provides nine years of mandatory education; however it is only up to the lower secondary levels³.

Figure 4: Public Expenditure on Secondary Education in BRICSAM Countries as percentage of GDP



Source: UNESCO Database

Responsiveness towards the education sector in general and secondary education in particular, is reflected in the share of government expenditure on secondary education in country's GDP.

³http://www.nkibrics.ru/system/asset_docs/data/5568/7b19/6272/693b/d15e/0000/original/Pedro_Arruda_Session9.pdf?1432910617

Figure 4 shows, among all the BRICS countries, India spends lowest on secondary education. Brazil has dedicated a substantial and growing budget to secondary education; South Africa and Mexico spend about 1.5 percent of their GDP on secondary education. Both China and Russia spend around 4 and 4.9 percent of GDP on education, much higher than India, however, due to the absence of disaggregated data for elementary and secondary level, it is difficult to analyse their pattern of spending at the secondary level for these countries.

After looking at the performance of India at the secondary level vis-à-vis other BRICSAM countries, it is important to analyse the performance of RMSA, the flagship programme of the government for providing secondary education.

Rashtriya Madhyamik Shiksha Abhiyan: A Holistic Approach to Secondary Education

As we approach the final year of the 12th five year plan; and the timeline for achieving the stated targets of RMSA such as universalising secondary education and ensuring equity for the marginalised sections, it is a good juncture to assess the programme through the lens of access, quality, equity and budgetary expenditure for the programme. The study focusses on Bihar and Himachal Pradesh; two states with relatively poor and better performance, respectively, in terms of educational indicators like enrollment rate, pupil-teacher ratio (PTR), availability of infrastructure facility etc.

Inequality at the Secondary Level: How are the states performing?

Enrolment

In the last ten years, India has witnessed an increase in enrolment at the secondary education level. The enrolment numbers increased from 2.8 crore in 2001 to 5.9 crore in 2013-14(Provisional). However, these figures vary across different social groups. For example, at the national level, only 8.5 percent and 6.5 percent of the ST population are enrolled in secondary and senior secondary level which is the lowest among all the marginalised communities. The same inequality can be seen at the state level where the proportion of enrolment of the SC/ST and Muslim children as compared to the General category is stark. There is a huge gap in the enrolment level for the General category even between the two states. While the enrolment for the General category in Himachal Pradesh is 51.2 percent and 54 percent at the secondary and higher secondary level respectively it is 18.3 percent and 28.2 percent for Bihar (Table 1).

Table 1: Percentage Enrolment by Caste 2014-15

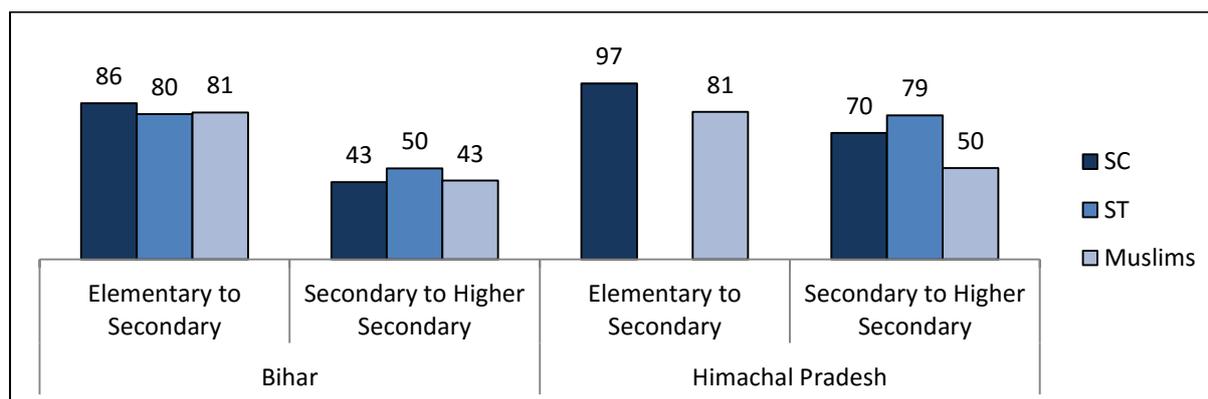
	SECONDARY				SENIOR SECONDARY			
	General	SC	ST	Muslim	General	SC	ST	Muslim
India	28.3	18.7	8.5	10.0	33.0	17.6	6.5	8.4
Bihar	18.3	14.6	1.4	11.5	28.2	12.7	1.7	10.9
Himachal Pradesh	51.2	27.3	5.9	1.4	54.2	23.5	6.0	0.9

Source: Secondary Education Flash Statistics 2014-15

Transition Rate

Transition from elementary to the secondary level is an important and challenging stage of the school system. It is important because if this stage is not tackled properly the whole idea of providing universal access to education fails (World Bank, 2005 and Siddhu, 2010). Though transition from elementary to secondary level is good it is problematic at the higher secondary level. As per the DISE data for the year 2014, the national level transition rate from elementary to secondary level is fairly good at 92.6 percent but it drops drastically to 68.3 percent from secondary to the higher secondary level. This difference in transition stands true for rural and urban areas and for different marginalized communities. One can see a huge gap in the transition rate of rural and urban areas from secondary to higher secondary level (58.4 percent for Rural and 87.9 percent for Urban).

Figure 5: Transition Rate of Different Communities



Source: Secondary Education Flash Statistics 2014-15

Note: The transition rate is for the year 2013-14

Education, especially secondary education, helps in upward social and economic mobility and therefore it becomes important that students from economically and socially weaker sections complete their education to achieve meaningful career path. While the transition rate from elementary to secondary level for the children of marginalised communities is decent in both Bihar and Himachal Pradesh, we see a decline in the transition rate from secondary to higher secondary level in both the states (Figure 5). The transition rate for children from SC/ST and Muslim community in Bihar has almost halved at the higher secondary level. The transition rate for the SC students has decreased from 86 percent in elementary to secondary, to 43 percent from secondary to higher secondary. Similar decline can be seen for the students from the ST and Muslim community in Bihar (Figure 5). While there is stark difference in transition rate at different levels of secondary education, there is not much difference in the transition rate among the three communities within each levels of secondary education. In Himachal Pradesh, within the marginalised groups Muslim children have the lowest transition rate both from elementary to secondary (81 percent) and from secondary to higher secondary (50 percent).

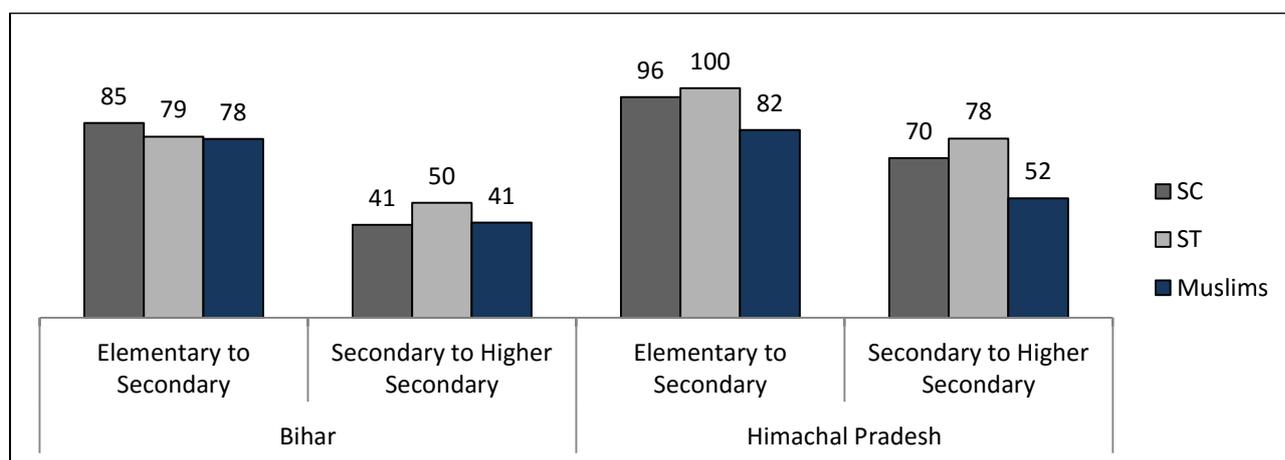
The existing literature on poor transition rate shows that the possible reasons for drop in the transition rate are high cost of education at the higher secondary level, less number of government schools, poor infrastructure facilities, poor teaching quality, inadequate teachers and poor guidance at a level which require specialized interventions. Low interest in studying is also one of the reasons; most of the children especially boys do not transit to the other level because of poor interest in studies (Siddhu, 2010; Linden, 2012 and Pailwar & Mahajan, 2005).

Other than these supply side issues there are some demand side concerns that affect the transition rate, especially that of the females. Females are the most marginalized in accessing secondary education within the ST/SC and the Muslim community. The national level enrolment for girls at the secondary level is as abject as 47 percent. The patriarchal structure of the society that view girls as care takers and not bread earners, who can financially support the family, is a major reason that parents do not invest on girl's education.

Bihar which has a lowest female literacy rate in the country (53.3 percent) has to achieve a lot in terms of bridging the gender gap at the secondary education level. The transition rate for the girls from the SC/ST and Muslim community experiences nose-dive at the secondary to higher secondary level when compared with the elementary to secondary level (Figure 6).

Himachal Pradesh which is a better performing state as compared to Bihar too has a low transition rate for girls of SC/ST and the Muslim communities from the secondary to higher secondary level. For instance in Himachal Pradesh the transition rate for ST/SC and Muslim girls from elementary to secondary level vary between 80 to 100 percent while it dips down to the range of 50 to 80 percent at the secondary to higher secondary level. Notably, the transition for the Muslim girls is lowest (52 percent) from the girls from the SC/ST community.

Figure 6: Transition Rate of Girls in different Communities



Source: Secondary Education Flash Statistics 2014-15

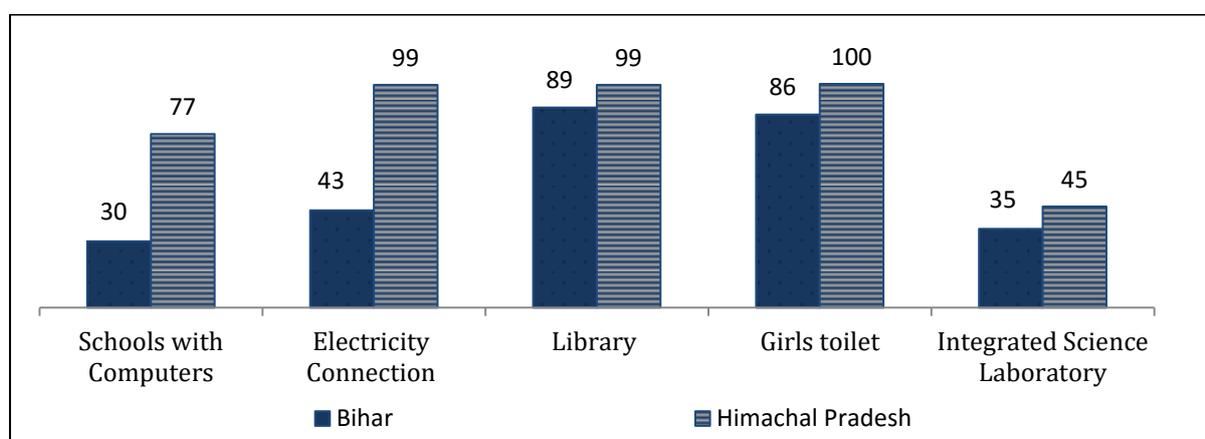
Infrastructure Facilities

Availability of infrastructure facilities helps in increasing the enrolment levels and ensuring better transition rate at different levels of secondary education. In addition to providing secondary school within a reasonable distance of every habitation (5 kilometre for secondary schools and 7 -10 kilometres for higher secondary schools) interventions such as creation of library, integrated laboratory, computer room, toilet blocks, drinking water facility, and girls' hostel in Educationally Backward Blocks (EBBs), art and craft room, etc., are part of the programme. While these facilities are basic for quality education it also determines access and equity in secondary education.

There is a huge gap in the availability of secondary schools in proportion to the available elementary schools. For example, Ministry of Human Resource and Development (MHRD) in its Digital Gender Atlas for Advancing Girls Education reports 76596 and 17720 elementary schools in Bihar and Himachal Pradesh; however the number of secondary schools in both these

states is as low as 5686 and 3392 respectively⁴. While availability of schools is the foremost thing to provide education, infrastructure such as girls toilet help in bridging the gender gap in secondary education.

Figure 7: Infrastructure Facilities in Secondary Schools (in percent)



Source: Secondary Education Flash Statistics 2014-15, DISE

According to the DISE data, in India about 96 percent of the schools have separate girls toilets but their usage and maintenance is a concern (CRY, 2013). A majority of schools in both Bihar and Himachal Pradesh have girls' toilet but Bihar is yet to achieve 100 percent target (Figure 7). Though 86 percent of the schools have girls toilet but in terms of its usage Bihar ranks second in the country, after West Bengal.⁵

Providing girls hostel is another measure that aims to improve the participation of girls at the secondary level. To encourage girls from poor socio-economic background a centrally sponsored scheme of setting up 100 bedded girls' hostel is implemented in each of the 3479 Educationally Backward Blocks (EBBs) of the country. Bihar shows a slow progress in implementing this scheme. In 530 EBBs in Bihar only 18 girls' hostels have been completed while 97 are in progress, none of the completed hostels are functional till date. Similarly in Himachal Pradesh which has five EBBs, five hostels have been approved but only two are functional (PAB, 2015).

Other than the aforementioned facilities that have a direct impact on participation at the secondary level, there are facilities that are crucial for a quality secondary education. About 90 percent of the secondary schools in Bihar and Himachal Pradesh have library but only 25 percent and 19 percent schools have a librarian. Promoting science is one of the objectives of RMSA, but only 35 percent of the schools in Bihar and 45 percent in Himachal Pradesh have integrated science laboratory. Out of the total secondary schools in India, about 32 percent, 31.9 percent and 30 percent of schools have physics, chemistry and biology labs respectively. The poor state of basic requirement for studying science affects the preference of students towards the subject. The non-availability of infrastructure for science education is reflected in the preference of subjects at the secondary level; students at the senior secondary level have highest preference for Arts followed by science, vocational education and commerce. To

⁴ Digital Gender Atlas for Advancing Girls Education, available at http://103.7.128.243/atlas/state_profile.html,

⁵ <http://www.thehindu.com/news/cities/kolkata/bengal-tops-in-schools-with-dysfunctional-toilets/article6311072.ece>

encourage students to pursue science; and to develop skills that match with the changing scientific and technological world, availability of infrastructure that facilitates this is essential.

Technology has become an important part of the present education system but unfortunately it is not accessible to all. There is a digital gap among children coming from different socio-economic and regional background. To bridge this divide RMSA has an ICT component that aims to equip students with computer knowledge. Government's intention to bridge this divide does not reflect in its efforts. For example, only 60 percent of the government schools in India have computers, a huge gap can be seen between Bihar and Himachal Pradesh when it comes to schools with computers (30 percent in Bihar and 77 percent in Himachal Pradesh). The inequality looks stark when we compare these government run schools with other government schools like Kendriya Vidyalaya (KVs), Jawahar Navodaya Vidyalaya (JNVs) etc. For instance of the total 1125 KVs in India and abroad, about 98 percent of them have computer labs and almost 100 percent have internet connectivity⁶.

Inadequate classrooms, dilapidated buildings, ill equipped libraries and science laboratories, poor electricity coverage etc. are important hurdles in achieving the stated objectives of RMSA. Report of the CABE Committee (2005) on Universalisation of Secondary Education has provided norms for the availability of infrastructure at the secondary level. The infrastructure ranges from classrooms (with LCD, electricity etc.) to separate toilets for boys and girls to a school with its own playground and gymnasium. The report states that, "*The norms may appear immediately to be utopian. But Committee considers it to be the necessary utopia.*" Though the importance of good infrastructure has been acknowledged by the government but there are serious gaps in its efforts to achieve them.

To provide quality secondary education to all, government should have an unbiased attitude in providing basic facilities. Things that are important are proper assessment of the requirement, proper planning and timely completion of the work. Other than implementation bottlenecks, budget is an important tool to achieve the targets. It is important to look at the budgetary commitments and the share of funds among the various components of RMSA to assess the programme better.

Allocation and Distribution of Funds under RMSA

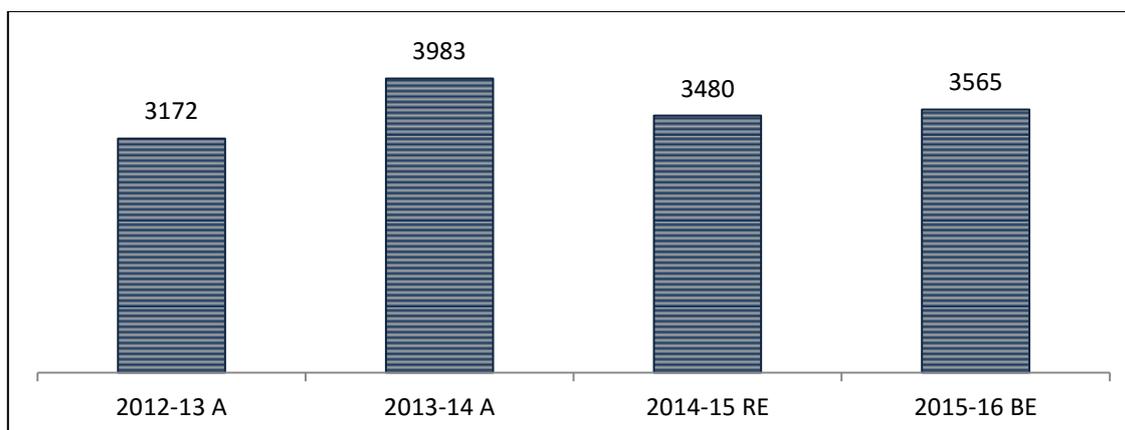
RMSA is a centrally sponsored scheme (CSS) and therefore, both the Union and the States allocate resources for the programme. The fund sharing pattern for the programme is 75:25. A gross budgetary support of Rs. 27,466 crore was indicated for the programme in the 12th Five Year Plan (2012-17). However till 2015-16, only 52 percent of the total outlay has been spent under the programme.

The school education budget for various years shows an imbalance in the distribution of budget between elementary and secondary education. While the share of the elementary education is 78 percent in the total school education budget of the Union government, it is 21 percent for the secondary education (2015-16 BE). RMSA being an umbrella programme for secondary education in India should have a large share in the secondary education budget but the share of RMSA in the total secondary education budget of the Union government in the past four years varied from 35-40 percent. RMSA's share in the secondary education budget of Bihar and Himachal Pradesh in 2015-16 (BE) was 2.4 and 8.9 percent respectively. Himachal Pradesh as

⁶ <http://kvsangathan.nic.in/ICTInfrastructure.aspx>

compared to Bihar is clearly providing more funds to RMSA under its secondary education budget.

Figure 8: Union Government Expenditure on RMSA (in Rs. Crore)

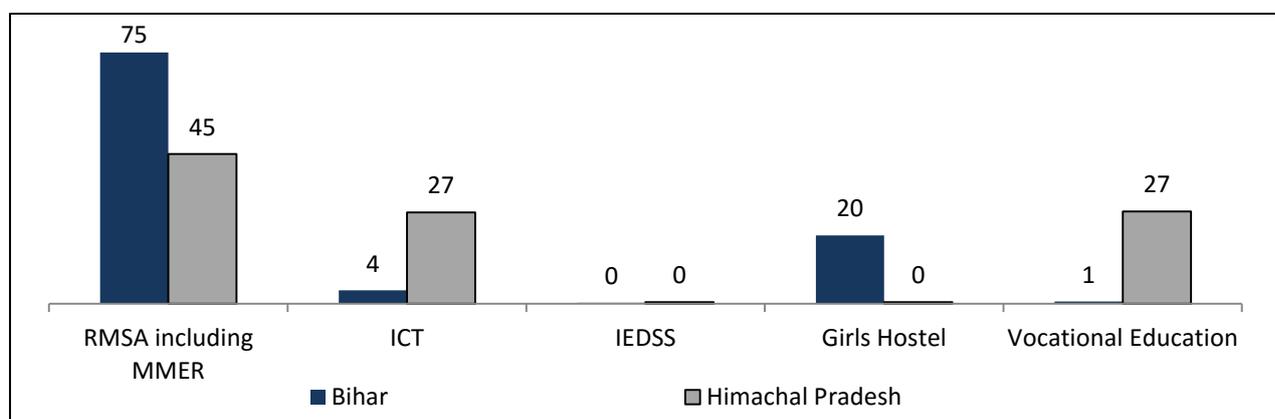


Source: Union Budget Expenditure Volume II for various years

Note: A= Actuals, RE= Revised expenditure, BE= Budget expenditure

The distribution of fund across five schemes under the umbrella RMSA gives interesting insights. About 85 percent of the fresh outlay for the year 2015-16 in both the states has been for recurring expenditure such as teachers' salary, teachers' training, school grant, etc. and the rest is for non-recurring expenditure in the nature of civil works. In both Himachal Pradesh and Bihar out of the total RMSA budget, the highest share goes to RMSA including funds for Management, Monitoring, Evaluation and Research (MMER)- 75 percent in Bihar and 45 percent in Himachal Pradesh.

Figure 9: Distribution of RMSA Fund (in percent)



Source: PAB minutes, 2015-16

Note: Total allocation includes fresh allocation for 2015-16 and the spill over for previous years.

IEDSS, the scheme for differently-abled at secondary stage, has a negligible share in the RMSA budget in both the states (Figure 9). Bihar does show a higher allocation for girls hostel as compared to Himachal Pradesh, but it is due to carried over funds from previous years. Overall both the states have large amount of spill-over fund but Himachal Pradesh is ahead than Bihar in implementing the schemes under the programme. In Bihar, schemes such as ICT in schools, IEDSS, and vocational education that have been subsumed under RMSA are poorly funded. In

fact, in all these schemes, a minimal allocation was approved in 2015-16 because of under-utilisation of funds in previous years.

The low priority given to RMSA can easily be seen by the low budgetary allocation by both the Union and the state government. Uneven distribution of funds for the various schemes under the programme shows lack of planning and poor implementation. Other than the problem of insufficient fund for the programme there are other implementation and institutional bottlenecks that affect the smooth functioning of RMSA.

Bottlenecks in Implementing RMSA

Non-availability of teachers

There is a shortage of trained and adequate number of teachers at the secondary level. Most of the children from the marginalized groups are first generation learners and require more guidance and support that only a well-qualified teacher can provide. As per Model Table, AWP&B 2014-15, there are 6,22,060 sanctioned posts of teachers in Government Secondary Schools at national level and about 76 percent teachers are in position.

According to MHRD Bihar has about 30-50 percent vacancy in teacher's positions while it is below 30 percent in Himachal Pradesh. In Bihar under RMSA, 1153 Head Masters and 6552 teacher positions have been approved by the PAB but only 33.7 percent have been deployed. Recruiting female teachers is important to encourage girl's participation at the secondary level; it is also one of the objectives of RMSA. However, the data shows a different picture, the share of female teachers in the total available teachers is about 21 percent in Bihar while it is 35 percent in Himachal Pradesh

To provide a focused intervention in educationally backward district, Special Focus Districts (SFDs) have been identified. These districts too face the problems of inadequate teachers at the secondary level. Bihar has eight SFDs -- 7 minorities and one SC dominated. These eight SFDs have 309 new secondary schools but no teachers have been deployed. Similar is the case with schools located in Left Wing Affected Districts. Only 37.2 percent of the vacancy in teachers position have been filled in 674 schools located in Left Wing Affected areas of Bihar (PAB minutes 2015-16). Unlike Bihar, Himachal Pradesh has addressed the issue of teacher shortage by deploying 163 Headmasters and 489 teachers through transfers and promotion in 163 upgraded schools under RMSA.

Poor Pupil-Teacher Ratio

It is important that the classroom environment be conducive for learning. Apart from the poor infrastructure; crowded classrooms and high pupil-teachers ratio are some of the reasons for poor secondary education indicators. Against the norm of having PTR of 30:1 under RMSA the PTR for India at the secondary level is 31. The PTR for Bihar is as high as 75 while it is 17 for Himachal Pradesh. Bihar with one of the worst PTR in country has significant vacancy of teachers; out of the total 44209 teacher posts sanctioned under the state 35 percent of the posts are vacant. Bihar also has a high student-classroom ratio of 126 as compared to national average of 47.

Delay in Civil Work

Absence of quality infrastructure is a major reason for school drop-out especially girls. Yet, in both Bihar and Himachal Pradesh, the percentage of infrastructure facilities completed is as low

as 10 percent. The progress in infrastructure work in Bihar is so slow that out of the 1153 new schools that were approved under RMSA only 24 percent of them have been completed till date. Delay in civil work creates a mismatch between the demand and supply which leaves no choice for student but to drop-out, go to private schools or receive substandard education.

Conclusion

India has achieved a considerable success in secondary education but the picture is dismal for the marginalized section of the society. The state of secondary education in India is not very encouraging. The primary idea of RMSA is to provide access to quality secondary education across regions and communities. Poor implementation of schemes, unavailability of trained and qualified teachers, poor infrastructure and poor allocation of funds etc. have a cascading effect on inequality. To address the issue of inequality in secondary education it is important that all the schemes under RMSA be implemented timely and properly.

Although the expenditure on secondary education has increased over the years it is not sufficient given the scale of operation. To see a significant growth in the secondary education level the Union government must increase its allocation for RMSA. The states should also step up their allocation on secondary education as they now have an increased share in the central taxes.

Rashtriya Madhyamik Shiksha Abhiyan does have the necessary guidelines to address inequality but the implementation is not satisfactory. A scheme like RMSA which provides a holistic approach to secondary education would fail if the institutional bottlenecks that lead to poor fund utilization and slow pace of implementation are not addressed in time. It is only through addressing these challenges in a planned manner; inequality at the secondary level of school education can be bridged.

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