

## INDIA

### RASHTRIYA MADHYAMIK SIKSHA ABHIYAN (RMSA) 1st JOINT REVIEW MISSION

#### STATE REPORT: (Rajasthan) (January 14 -20, 2013)

#### 1.1. Introduction

The 1<sup>st</sup> Joint Review Mission team comprising of Sourav Banerjee (GOI representative) and Toby Linden (World Bank) visited Rajasthan from 15<sup>th</sup> to 19<sup>th</sup> January 2013 to review progress towards overall goals and objectives of Rashtriya Madhyamik Siksha Abhiyan (RMSA) with special reference to planning and appraisal processes and civil works.

The Mission team met with Principal Secretary, Education, Ms. Veenu Gupta, and the State Project Director, Dr. Veena Pradhan, and her staff, and travelled to the districts of Ajmer, Bhilwara and Chittorgarh. In the districts, the Mission visited schools, met students, teachers, members of the school community and district level functionaries of RMSA. In Chittorgarh, the team also met Dr. Ravi Jain, the District Collector. The full programme is attached at the Annex. The Mission highly appreciates the warm hospitality extended to the team by all stakeholders and is extremely grateful to all those who gave their time to make the visits so informative and enjoyable.

#### 1.2 Overview and Key Issues

The state of Rajasthan has taken various initiatives for strengthening of secondary education, including up-gradation of upper primary schools, recruitment of teachers and introduction of several schemes to encourage participation of girls and other disadvantaged children in secondary education. The state has also established the necessary systems and processes for effective implementation of RMSA. Planning processes have been streamlined; SEMIS data and individual school improvement plans have been the basis of planning for RMSA.

However the focus of planning under RMSA has so far been on making available the necessary infrastructure (civil works and teachers). The state now needs to quickly shift the focus to effective planning for quality and equity as without this the program runs the risk of not making a significant dent in the key issues identified by the state in secondary education.

Actual implementation has been affected by the following reasons:

- Regular availability of funds
- Various norms and unit costs prescribed by GOI which had made it difficult for the program to respond to specific challenges.
- Large vacancies of staff as a result of low MMR funds; this has affected program management. The State and the GOI need to resolve these issues at the earliest to ensure effective implementation of RMSA in the state.

## Focus areas for this JRM

### Planning and Appraisal Process

#### Effective planning is hampered by uncertainties about financial releases and flows

Several issues were identified at each stage of the planning and fund flow process which create significant uncertainty and reduce the capacity for effective implementation. First, PAB approvals have been consistently lower than requests, but present state officials were usually not aware of why PAB proposals had been rejected since the reasons for such rejection were not always minuted/recorded. The gap between State proposals and PAB approvals has been improving, but not consistently and from a very low base (see table). Second, releases from GoI have been consistently lower than PAB approvals due to low fund availability at GOI level. Third, the State, districts and schools complain about receiving money too late in the financial year (though GOI clarified that delayed releases have been mainly due to delay on the part of the state in submitting necessary documents); this is especially problematic for recurring funds, which cannot be carried forward. The net effect is that expenditure as a proportion of PAB approvals is very low.

Year	PAB proposals	Approvals	Approvals as % of proposals	Funds available (GOI and State releases + carry forward)	Expenditure	Exp. as % of approvals	Exp. as % of available funds
2009-10	100602	4319	4.3%	1818	1791	41.5%	98.5%
2010-11	91812	32911	35.8%	8559	5603	17.0%	65.5%
2011-12	102416	78284	76.4%	21430	12460	15.8%	57.9%
2012-13	44229	25728	58.2%	8704	2818	11.0%	32.4%

Source: Brief: Rajasthan. Note: budget figures in Rs. lakhs.

#### Recommendations for State

- *State planning should include a Plan B, in case the PAB does not approve all the State's proposals. This prioritization should be transparent.*

#### Recommendations for GoI

- *Greater coordination between the central and state government is required to ensure regular availability of funds*
- *Greater clarity of the PAB minutes is needed to explain decisions made. This will provide useful guidance to all States in the future.*
- *GoI should explore the option of providing (in discussion with the Ministry of Finance and Planning Commission) an indicative allocation to each state at the start of the planning process, based on the expected budget envelope and objective needs of states. States would then plan their PAB proposals within this indicative total.*

## **Planning is evidence-based but not sufficiently linked to key challenges or expected outcomes**

Planning in Rajasthan is commendably evidence-based. The State has made good use of SEMIS data (though the most recent is not yet available), has conducted a GIS-mapping exercise (though an updated report is awaited), has estimated teacher needs by subject, and collects data from schools on infrastructure. This evidence is collected consistently across state, and district officers were able to explain the data they collected and use.

The Mission team found that district and state plans list the generic problems in secondary education and the proposed activities to be funded under the RMSA Programme. However, there was no attempt analyse the problems in more detail (for example, explaining why gender enrollment is low or why the transition rates fluctuate across districts) so that there is a justification for and link to the interventions proposed, and an understanding of the expected outcomes from the interventions. Given that RMSA funding is relatively modest (at least at present), the State would benefit from setting clearer priorities and identifying specific strategies to address them.

### *Recommendations for State*

- *Ensure SEMIS for 2011-12 is completed urgently, and for 2012-13 as quickly as possible to inform the planning process for 2013-14.*
- *Use projections of likely student enrollments to plan investments. These projections are needed at the sub-district level; i.e., at the school or at least block level. The projections also need to take into account the presence of and spare capacity in private schools, to estimate demand for government school places.*
- *Update the analysis of teacher requirements by subject as soon as possible; then sanctioned posts need to be filled on a priority basis. The analysis should look at projections of teacher needs.*
- *Use the Planning and Appraisal Manual to develop more specific strategies linked to priority issues for the State and the districts.*

## **There is an urgent need to plan for improvement of learning outcomes/quality education**

The Mission team found little evidence of planning at the school, district or State level for quality improvement, beyond planning for teacher training. Few people met could articulate the reasons for poor student learning outcomes and effective strategies to address them. It appears that the discussion around the RMSA Programme has focused mainly on infrastructure. In probing discussions during the visits, the Mission team found two key issues which need to be addressed urgently:

- The weak core skills (literacy especially) of students when entering secondary education. These weak literacy skills mean that children do not have access to the most of the curriculum across all subjects. This issue will only become more acute as additional children come into the secondary sector, as enrollments and completion rates in elementary education increase further.
- The negative impact of the Board examination on the curriculum and pedagogy prevalent in secondary schools. This is restricting the capacity of teachers to utilize the NCERT textbooks which have been adopted and shift their teaching to include, for example, more project-based work.

The Mission team commends the State for having twice requested funds for developing a learning assessment; the proposal was rejected during the appraisal process. The GOI informed that the proposal could not be entertained due to lack of sufficient details. The Mission agrees with the need for this exercise urgently and therefore recommends that the state takes up the proposal again with the GOI along with sufficient details.

### Recommendations for State

- Engage stakeholders in an open conversation about how to identify the main constraints to learning outcomes and effective strategies to overcome them. The focus of that conversation should be on how to help teachers respond to the multiple learning needs of their students. This conversation should then inform:
  - Priorities for and content of teacher training; it is likely that this will include helping teachers in all subjects focus on literacy and helping teachers respond to the wide range of student learning needs
  - Strategies to help some students significantly improve their basic skills; it is likely to include additional/ remedial classes, specific learning materials, parental engagement
  - Use of school facilities (rather than focusing on the existence of these facilities), for example, what activities are taking place in libraries and with library materials to encourage enjoyment of reading? The State may consider issuing good practice guidance to schools in this respect (which would include advice about how to get rid of old and out-of-date books which are clogging up library shelves).
  - Identifying and promoting institutional capacity (see below).
- Continue to seek funds for an assessment of student learning (along with necessary details), and instruments that teachers can use to keep track of students' progress.
- Reach out to the State Board of Secondary Education to support a shift towards an examination system and syllabus in line with the National Curriculum Framework 2005.
- Seek mechanisms for promoting in secondary schools and their communities a greater understanding and acceptance of the non-retention policy in elementary education

### Recommendations for GoI

- Consultation with states on the effectiveness of the Quality Improvement sections of the Planning and Appraisal Manual and revise in response to suggestions
- Establish a clear and detailed timetable and the budget for the development of the Class X assessment, to provide outcome measures of secondary education and provide guidance to States
- Encourage and approve proposals by states to develop their own learning assessments, linked to the NCF 2005, especially in grade 9, subject to their technical soundness
- Engage the State Boards, through COBSE, in continued examination reform

### **There needs to be planning for institutional development, especially for academic and leadership support**

The State, through support from RMSA and SSA is supporting teacher training and is engaged in a pilot for leadership (principals') training with NUEPA and the UK's National College for School Leadership. These activities are to be encouraged (subject to the remarks above about the content of that training). The Mission in particular believes that effective principals can be one of the fastest ways to improve the performance of schools. (It is noted that more than half the schools visited had an acting principal; this indicates that those needing leadership training should extend beyond those formally designated as principals.)

However, at present, the approach to training is through the use of master trainers/key resources persons; and these individuals are those who already have full-time jobs (as teachers or principals). The challenge with this approach is that it does not build longer term capacity, available as needed, to support change at the school level. In addition, Block and Cluster Resource Centres are not active.

#### Recommendations for State

- Engage existing institutions such as SCERT, IASE, SIEMAT, DIETs, Colleges of Teacher Education (in both the public and private sector), and NGOs to provide training. Where necessary, RMSA should be used to build up the capacity of these institutions, including those in the private sector, so that these resources are available to the State, including through RMSA funding, on a larger scale in the future.
- Ensure that the leadership training being developed with NCLS and NUEPA for principals focuses not only the content of the training, but also a plan to build sustainable capacity and in particular roll out the programme to all 11,500 government secondary schools in the state.
- In the short run, this capacity will not be sufficient to meet the training and capacity building needs. One approach, which will also have longer term benefits, is to promote the networking of teachers and principals, so that they can support each other on an ongoing basis in overcoming their local challenges. This should be a specific objective of any training.

#### Recommendations for GoI

- Promote stronger linkages between SSA instruments and those of RMSA and the CSS on Teacher Education. For example, state level institutions under NCERT and NUEPA could be supported both from SSA and RMSA to carry out different activities.

**Several aspects of the Programme appear to impose unnecessary and counterproductive restrictions on the State's capacity to plan well.**

These restrictions result in inefficient or ineffective use of funds. The areas noted by the Mission are:

- The component wise specification of financing norms for civil works. These norms are not present in the RMSA Framework but included in an annexure to the Planning and Appraisal Manual. As elsewhere in the Framework, a better approach is to allow State norms to apply. GOI informed the Mission that necessary steps are being taken in this direction.
- School annual grants are given in the same amount to each school, which means that some large schools do not receive significant additional resources.
- The prescribed allocation of activities for the school annual grant undermines the purpose of the grant which is to foster autonomy, capacity and community engagement at the school level. GOI informed the Mission that these components are merely indicative but the state seems to be under the impression that these are prescriptive.

#### Recommendations for GoI

- The GoI should consider allowing State financial norms to apply for the different elements of civil works and States to allocate the school grant by enrollment, so that larger schools get more useful amount of money, perhaps subject to a minimum amount per school (with that minimum set by the State).

### **Civil Works**

**Civil works progress has been significantly hampered by lack of funds and restrictions on unit cost.**

The status of civil works is as follows:

Type of civil works	2010-11 sanction	2011-12 sanction	Total sanctioned	Works complete	Works in progress	Work orders not issued
<b>Strengthening of schools</b>	951	2392	<b>3343</b>	<b>62</b>	696	2585

(addl. rooms, lab, comp. room, library, art room, toilet, drinking water						
<b>Major repairs</b>	428	564	<b>992</b>	<b>116</b>	89	787

Note: The state informed the Mission that all the civil works in progress relate to the 2010-11 sanctions as no funds were released by GoI against the 2011-12 sanctions. GOI however informed that funds were released in 2011-12 as well.

Progress of civil works has been seriously hampered due to (1) delay in release of funds and (2) rise in unit costs due to this delay. The unit costs sanctioned for the facilities are fixed at the national level and fixed several years' back. Cost of building materials has undergone major increases in the past few years; and as a result the approved unit costs have become untenable. Contractors in many cases have stopped work expressing their inability to complete the work in the agreed rate. Forcing contractors to work with an unreasonable unit cost would force them to cut corners, thereby affecting the quality of work. The following options can be explored:

- Consider reducing the areas of the facilities like the computer room, art room and library.
- Re-looking at the design to make them cost effective, e.g., doing away with the verandah, making it narrower etc (explained in detail below).
- Using the savings accrued in certain works to be adjusted against the higher cost in other cases (explained below).
- Explore alternative sources of funding e.g other departmental funds or private funds.

If none of the above works, the GoI should seriously consider increasing the unit costs with retrospective effect.

Recommendations for the State:

- *No further civil works be started unless the issue of unit costs are resolved. The focus of the state in the next six months should be on completing the works that are in progress.*

Recommendations for GOI

- *States should be allowed flexibility in deciding their own unit costs.*
- *Immediate steps should be taken to resolve the impasse with respect to unit costs in discussion with the state; this can be done by sanctioning additional funds or by allowing reduction in targets/room sizes.*

**The focus of civil works planning should be to ensure that the infrastructure is provided to schools that need it the most**

The mission tried to develop an understanding of the process through which civil works needs are identified and prioritized. The individual school improvement plans list out the infrastructural facilities that are available in the school in a specified format. The format also provides information on the size and condition of the existing rooms. Based on the reported infrastructure and the current enrolment, the gaps/needs of each school are calculated at the district level. The schools are then listed in order of their enrolment and the civil works allocations are prioritized as per enrolment; the school with the highest enrolment is accorded the highest priority and all infrastructure need of that school is fulfilled (whole school approach) before moving on to the school with the next highest enrolment.

The process, though logical and transparent, has the following drawbacks:

- Since funds are limited and the need for civil works is very high in most schools, a very limited number of schools per district could be catered to during the past three years of the program. Also it is mainly the urban/ peri-urban schools with high enrolment that have been benefitted from the RMSA civil works.
- There is a possibility that schools that are in greater need of classroom get left out just because their enrolments are lower. For example, a large school (with enrolment over 1000) with 24 rooms might need another classroom and a library; such a school gets priority over another school having 200 students and three classrooms, though the requirement for a classroom in the second school is greater.
- Since the infrastructure need is calculated based on reported data and not a strict assessment of the existing situation, some of the schools might have been over-provided for. The Mission observed a couple of such cases. In one case the school had a couple of small classrooms that did not meet the minimum classroom norm provided in the guidance and was therefore not reported as existing classrooms. However, some of the sections in the school had very few students and could easily fit into these rooms. In another case, the school had an enrolment of 1800 students with over 40 classrooms. Running the school in two shifts could have ensured better utilization of the existing infrastructure rather than providing additional classrooms. The Mission also observed a couple of cases where existing rooms could have been refurbished through major repairs instead of adding more rooms.
- The planning does not take into account possible infrastructure that the village might receive through donation or from other sources. The Mission observed a case where a computer room was allocated to a school while the same was provided by a Minister.
- While in general the ‘whole school’ approach is admirable, it does mean that the State is unable to focus on some specific priorities (for example, ensuring all schools have girls’ toilets to meet the State’s concerns about gender equity).

#### Recommendations for State

- *The initial identification and prioritization of the schools on the basis of reported data should be followed up with a physical verification to confirm that the facilities proposed are actually needed. Alternative options like refurbishment of existing infrastructure, double shifts and likely availability through other sources should be considered before making any fresh civil work investment.*
- *There should be some flexibility of catering to the critical needs of schools with lower enrolment, based on an objective criterion. The state informed that the flexibility currently exists but the Mission did not observe it being adopted in any of the three districts visited. There is a need to emphasize this flexibility to the districts.*

#### Recommendations for GOI

- *The GOI should seek feedback from the states to see if the whole school approach is the best way of providing civil work facilities. With the current limitation of funds, should something like an art/craft room receive priority over more critical needs like classrooms and girls’ toilets?*

### **Need to revisit procurement processes to make them more efficient.**

The procurement of civil works is done at the district level. The NIT is issued on-line listing out all the works that are to be taken up in the district. However, bidders are to bid for individual works. The bids are received and opened at the district office in presence of the SDMC members of the concerned school. After a comparative analysis and identification of the lowest bidder (technical competency is established by the registration of the contractor and in case of all the bids from registered contractors, the lowest bid is selected) the file is sent back to the school for final negotiations. Once the final amount is decided, the file is sent back to the district and from there to the state office for approval. After approval from the

SPO, the file is sent back to the school via the district and the SDMC issues the work order. The entire process takes four to five months.

Payments are released to the contractor in three installments; the first 40% of the contract value on issue of work order, the next 40% on 50% utilization of the first installment and the balance 20% on completion of work and acceptance by the SDMC. 10% security deposit is paid back on expiry of the defects liability period (one year).

The NIT mentions the estimated cost of the works that is based on the state/district Schedule of Rates (BSR). The contractors are supposed to bid for a percentage above or below the BSR. However, if the lowest bid is above the estimated cost, the money to be paid to the contractor is limited to the estimated cost; as a result, certain items of work are curtailed under the instruction of the engineer-in-charge. In case the lowest bid price is below the estimated cost, there are savings, which unfortunately cannot be adjusted against the works with higher bid price. This has resulted in a peculiar situation where on the one hand there are savings under some contracts while on the other hand a number of works are stuck up as the contractors are not being able to complete the work within the estimated cost due to escalation. The Mission was informed that such re-adjustment of costs was not allowed as per the Financial Management and Procurement Manual.

The SPO needs to consider if there is really a need to approve every contract at the state level. This decision can be decentralized to the district level with the SPO conducting a sample check at regular intervals. This would cut down the delays in the procurement process and may even result in better bid prices (as contractors usually quote higher prices to cover up for such delays).

Further, the advantages of centralized tendering can be best realized when the works are bundled together. This increases the value of the work and attracts bigger contractors to bid for the job. In the present approach used by the state, since the works are all segregated, and the contract value is low, only small contractors bid for these jobs; in some cases the works are further sub-let to local contractors as observed by the Mission. Works through small contractors affect both quality as well as cost. The state may therefore consider bundling of the works at a block/district level. Once a contractor has a number of works, they can offer a better price; also the quality of works done by bigger contractors is usually better as they have access to better resources. This issue was discussed in the wrap-up meeting with the Principal Secretary and she informed that the experience of the state with bundled works have not been very good as bigger contractors are reluctant to go to remote areas.

In case the state is interested in decentralizing civil works, it may look at the option of doing away with tenders and pass on the funds to the SDMC or the Panchayat and allow them to directly implement the works, as under SSA. In that case there would be some savings as there will be no contractor's profit. This approach could however work only when the value of works are within the prescribed limits.

#### Recommendations for the State

- *Review the need to approve each contract at the State level and consider the option of decentralizing procurement to the district level with sample checks by the SPO.*
- *The state may consider taking up a few works through bundling and a few works through direct implementation through SDMCs to better understand the pros and cons of both the approaches.*

#### Recommendations for GOI

- *Consider the possibility of allowing the savings in one contract to be adjusted against the higher bid price of another, so long as the overall amount approved for civil works is not exceeded.*

## **Robust systems are in place to ensure quality of construction.**

The state has set up pretty robust systems to ensure quality of construction. There is a large engineering setup with a Superintendent Engineer, an Executive Engineer, an Assistant Engineer and a Junior Engineer at the state level and an Assistant Engineer and a Junior Engineer at each district; though 22 out of the 33 A.E posts and 23 out of the 33 J.E posts at the district level are currently vacant. The SPO tracks the progress of each and every civil works through an online spreadsheet that is updated regularly at the district level. The engineers at the district level monitor the works on a regular basis. Photographs and measurement books are maintained with respect to all the large constructions, including major repairs. Samples from each site are sent to laboratories for regular testing and records of such tests are maintained. The security deposit that the contractor has to deposit and withheld till the expiry of the defects liability period also acts as a deterrent to compromise on the quality of construction. The SDMC members that the Mission met were also very vigilant and kept a strict watch on the quality of construction.

The under-construction civil works observed by the Mission seemed to be structurally sound and of good quality. However the quality of finishing was often not up to the mark. This again, in most cases, was a result of employing local contractors who often do not have the kind of skilled masons required to produce good finishing

The minor repair works carried out are entirely done under the supervision of the SDMC and do not have and engineering input. However, most of these minor repair works were completed satisfactorily and proper expense records maintained for the same. Asset registers were available at all schools visited during the Mission.

### Recommendations for the state

- *Focus on the quality of finishing in civil works.*
- *Fill up the vacant posts of engineering staff at the earliest*

## **Need for innovation in design of facilities in line with the Environment Management Framework, with support from GOI/TSG.**

The designs of the various facilities were pretty uniform across the districts. Though the designs are developed at the district level, these are standard designs based on room sizes provided by the state office (which in turn is based on the sizes recommended under RMSA norms). There is no innovative thinking noted either at the state or at the district level. A classroom, a computer room, a laboratory or an art room currently looks exactly the same, though all of them have very different purposes. None of the new structures have provision for rain water harvesting or solar panels for lighting as recommended in the RMSA framework; the provisioning for disabled children were also not very effective (e.g, inappropriate slope of the ramp).

Designs are one area where a lot of improvements can happen. As the designs are done at the district level, there is an opportunity to have individual site specific designs based on the requirements of each school. For example, in schools with low enrolment, a large library of the size recommended may not be required. The design of the library can also have a number of in-built shelves so that the cost of providing furniture to these libraries is minimized. There is also a need to re-look at the necessity of a wide verandah in a secondary school (unlike an elementary school where the verandah is used for mid-day meal) and if there can be alternative cost effective solutions. In one of the schools visited by the Mission, the classrooms donated by a private donor had the verandah covered by a tin roof, thereby significantly reducing the cost of construction.

The designs of toilets were also observed to be varying widely and many of the toilet designs were not very effective. In most cases the number of toilets had no relation to the number of students who are likely to use them. In some cases, the toilets had no flushing arrangements. In case of toilets it may be helpful to have a modular design developed at the state level, with the number of modules increasing or decreasing as per the number of children using the toilet. Girls toilets should also have a facility for disposing off sanitary napkins.

*Recommendations for the State*

- *The SPO should develop a set of comprehensive design guidelines for the district that take into consideration aspects of functionality, cost effectiveness, energy efficiency and disabled friendliness.*
- *The district should be allowed to develop district specific (and in some cases, school specific) designs based on the state guidelines and within the approved unit costs.*
- *For toilets, modular designs can be developed at the state level with the help of expert agencies (UNICEF could be consulted) and shared with the districts*

*Recommendations for GOI*

- *The current RMSA norms are very restrictive and do not allow design innovations and needs to be re-looked into. Prescribing room sizes and areas from the national level prevents states from developing designs based on local needs.*
- *GOI/TSG need to support the state in rolling out design innovations.*

## Progress towards the achievement of Goals

### Goal 1: To improve access to secondary schooling

#### *Achievements and Good Practices*

The state government has recently upgraded a number of upper primary schools into secondary schools. Though this was based on manual mapping of schools, it is expected that most habitations now have a secondary school within a reasonable distance. A GIS-based school mapping exercise is currently underway; this will provide a better understanding of the access situation and reveal if any more secondary schools are needed. Given that the GIS reports are expected by end February, the state will be able to project the requirement of any new secondary schools in this year's AWP&B.

Overall enrollments have risen steadily and significantly in recent years. These increases are a result of higher enrollments and progressions in and transition from elementary education; these increases are high enough that they will mean continued rises in secondary education enrollment despite a falling age cohort (2011-12 is projected to be the largest cohort).

Year	Enrollment		Class IX enrollment as % of previous year's Class VIII enrollment
	Class VIII	Class IX	
2006-07	998064	723250	
2007-08	1048362	823208	82.5%
2008-09	1161104	845690	80.7%
2009-10	1147249	905804	78.0%
2010-11	1168564	953128	83.1%
2011-12	1185001	1121754	96.0%

Source: Authors calculations from RCSE data. Note: 2011-12 Class IX enrollment is tentative

More than 50% of the senior and senior secondary schools are in the private sector (unaided, as the state does not have any private aided schools any longer as it recently absorbed all teachers into the government service). The state has notified detailed rules and regulations regulating these private schools, that include area of the school, infrastructure facilities, teaching staff, fees, curriculum and inspection systems. This is a good example for states which have a rapid growth of private schools.

#### *Concerns*

The requirement of teachers and infrastructure is based on current enrolments. While there has been some effort to project future enrolments at the district level (based on grade VIII enrolment data), the planning for access at the school level is not based on such projections. Further, the private schools have not been taken into consideration in the planning for access and universalization.

#### *Recommendations*

Effective planning for access would require school-level analysis of projected enrolment based on completion rates of the feeder elementary schools and trends of children moving from government to private schools and vice versa at the end of elementary grades. For example, if the secondary school is a co-ed one, a number of girls from the feeder girls' schools can be expected to either drop out or move to a private girls' school, if available nearby. These school level analyses then needs to be aggregated up to the district and then state level. These analyses should also consider the presence of recognized private

schools, so that priority for investment is given in those areas where no school exists (rather than simply no government school).

## **Goal 2: To bridge gender and social gaps**

### **A. Gender gaps**

#### *Achievements and Good Practices*

Over the past ten years there has been a huge increase in the participation of girls in secondary education. The difference in the GER of boys and girls, for grades IX-XII now stands at 16.9 percentage points though an analysis of secondary as against higher secondary would be useful. The State should also consider comparing the proportion of girls who finish elementary education and enter into Class IX with the proportion of boys in the same category.

**Gross Enrollment Ratio in Rajasthan, 2001-11  
(Secondary and Senior Secondary Stage: IX-XII Classes, Age-group 14-17 year)**

<b>S. No.</b>	<b>Year</b>	<b>Boys</b>	<b>Girls</b>	<b>Average</b>
1	2000-2001	31.59	13.00	22.68
2	2001-2002	34.01	14.15	24.50
3	2002-2003	35.56	15.17	25.79
4	2003-2004	40.10	18.37	29.96
5	2004-2005	41.85	20.17	31.72
6	2005-2006	43.03	22.78	33.63
7	2006-2007	45.18	24.32	35.54
8	2007-2008	47.33	28.33	38.52
9	2008-2009	49.48	30.71	40.78
10	2009-2010	53.01	34.45	44.88
11	2010-2011	56.95	40.02	49.11

Source: Directorate of Secondary Education, Govt. of Rajasthan, Bikaner

In order to encourage participation of girls in secondary education, the state government has launched some major initiatives like (1) providing transport vouchers to girls (2) providing bicycles (3) linking KGBVs to Girls Hostels and (4) reserving 30% teacher posts at secondary level for women and (5) Gargi and Indira awards for girls.

The state as a strategy is also discouraging the establishment of girls' senior secondary schools (as these schools mostly end up having only Arts faculty) and encouraging co-educational schools that offer all three faculties – arts, science and commerce. This will make it easier for girls to take up science and commerce, unlike the current situation when girls end up taking arts as this is the only faculty offered in a girls' school.

#### **Concerns**

The state acknowledges clearly in its RMSA documents about the need for attention to female student enrollment. However there has not been much attempt to identify blocks with high gender gap, analyze the reasons for the same and plan interventions accordingly. Consequently, there has been no structured planning for achieving gender equity. The proposals for support under RMSA are weak and unconvincing and there is no evidence of their integration with the various other initiatives of the state government.

The state's strategy of having co-educational schools with all three faculties is progressive thinking but needs to be followed up with extensive engagement with the parents to convince them of the benefits of

this approach; secondary and higher secondary education is an opportunity for girls and boys to learn to study and work together, in a way which enables them to transition more effectively to the post-school world.

### **Recommendations**

- *The State should articulate a gender action plan, which identifies specific blocks or districts where girls enrollment is an issue and list the full range of activities being supported by the State through various schemes. This action plan can then ground the RMSA annual proposals.*
- *The State could consider comparing the proportion of girls who finish elementary education and enter into Class IX with the proportion of boys in the same category, as a measure of gender equity in secondary education.*

### **B. Social Gaps: Scheduled Caste, Scheduled Tribe, Muslim Minority**

The Mission was unable to investigate these issues in any detail.

### **C. Children with Special Needs**

The Mission was unable to investigate these issues in any detail. However, during the field visits, the design of wheelchair access ramps was inadequate, with ramps either being too steep, without railings or indeed absent (recommendations on this topic are discussed in the Civil Works section).

## **Goal 3: All children retained in education system**

### **Achievements**

The transition rate from the elementary to the secondary stage has declined from 76.71 percent in 2009-10 to 71.64 percent in 2010-11. It would be useful for the state to consider this decline in the longer term perspective (over the past 3-4 years) to see whether this represent a longer term trend, which would be of concern. It is noted that the gap in transition rates between boys and girls declined, but this is only because the overall transition rate for girls fell less than the rate for boys. In addition, the state should look more closely at those districts in which the transition rate has fluctuated significantly, either up – so that good practice can be shared – or down – so that action can be taken (these districts are highlighted in the table).

### **Transition Rate from Elementary to Secondary Stage**

District	2009-10			2010-11		
	B	G	T	B	G	T
Ajmer	82.39	77.32	80.48	83.97	82.46	83.39
Alwar	76.21	72.16	74.52	67.35	62.48	65.27
Banswara	92.31	91.95	92.16	78.72	82.55	80.34
Baran	69.2	62.95	66.87	21.81	30.11	25.07
Barmer	74.65	60.31	70.03	83.73	74.5	80.5
Bharatpur	70.11	60.38	66.23	76.5	69	73.39
Bhilwara	72.81	71.34	72.23	86.37	82.46	84.85
Bikaner	90.1	78.2	85.58	89.03	84.53	87.25
Bundi	74.45	66.43	71.36	67.34	66.29	66.93
Chittorgarh	75.09	62.05	69.68	63.8	63.75	63.78
Churu	84.47	76.49	81.06	87.33	75.29	81.65
Dausa	80.67	71.33	76.86	62.3	65.93	63.8

District	2009-10			2010-11		
	B	G	T	B	G	T
Dholpur	75.63	63.98	71.14	45.12	68.66	54.62
Dungarpur	76.37	72.18	74.48	71.88	73.82	72.77
Ganganagar	86.99	78.99	83.39	84.58	80.78	82.86
Hanumangarh	62.86	57.69	60.47	80.2	81.1	80.61
Jaipur	85.54	80.98	83.56	69.54	67.6	68.67
Jaisalmer	66.56	42.76	59.88	78.14	62.34	73.58
Jalore	79.19	61.85	73.84	69.07	58.21	65.61
Jhalawar	72.72	67.68	70.81	37.87	45.28	40.73
Jhunjhunu	81.05	81.56	81.28	47.2	50.54	48.69
Jodhpur	108.5	79.57	96.97	105.3	86.6	97.72
Karauli	80.68	56.08	70.76	75.18	58.81	68.16
Kota	74.4	71.82	73.31	71.93	69.36	70.82
Nagaur	73.79	67.52	71.34	75.48	71	73.66
Pali	75.69	65.61	72.04	75.28	67.81	72.47
Pratapgarh	71.47	66.49	69.39	66.87	64.67	65.93
Rajsamand	80.48	73.72	77.76	80.08	77.2	78.9
S. Madhopur	77.05	67.39	73.73	81.22	73.32	78.3
Sikar	79.05	75.08	77.29	64.02	63.22	63.66
Sirohi	80.82	67.77	76.55	70.61	60.44	67.26
Tonk	86.16	83.98	85.38	87.53	87.56	87.54
Udaipur	83.81	74.9	79.99	79.32	79.57	79.43
Total	79.76	72.22	76.71	73	69.73	71.64

Source: Rajasthan brief

### **Recommendations**

- *The State should investigate the trends in transition rates from elementary to secondary education.*

### **Goal 4: Education of Satisfactory Quality**

#### ***Achievements and Good Practices***

Commendably, the state has carried out an extensive exercise to identify the number of current gaps in teachers by subject. This was the basis for the sanctioning of 8097 teachers by the PAB. All these teachers have now been recruited; these are regular teachers, qualified (B.Ed) and mostly recruited through the Rajasthan Public Service Commission. Some teachers were promoted from upper primary schools (subject teachers); an option more easily applicable in Rajasthan because most schools teach grades 6 to 10 (or 12) and many teachers in fact teach across both elementary and secondary classes. The State has specified that when additional teachers, beyond the 5 minimum subject teachers, are needed because of enrollment at a school that a mathematics teacher is appointed first, then science, English and then a Hindi, Social Sciences or 3<sup>rd</sup> language teacher ; this seems a sensible approach.

Overall the pupil-teacher ratio looks comfortable, at 22:1 in the secondary stage (see table). And as more teachers are appointed, this ratio is expected to fall. However, the overall ratio is not so significant at the secondary level (as the State is aware) since subject teachers are needed and the overall average conceals many small schools with very low PTR – about 60 percent of schools have less than 150 students in classes 6-10. Only about 1,000 of Rajasthan's 15,000 secondary schools have more than 800 pupils.

### **Pupil - Teacher Ratio**

<b>Year</b>	<b>At Secondary Stage</b>	<b>At Senior Secondary Stage</b>
2004-2005	1:23	1:29
2005-2006	1:22	1:29
2006-2007	1:22	1:27
2007-2008	1:22	1:28
2008-2009	1:22	1:28
2009-2010	1:22	1:29
2010-2011	1:22	1:29

Source: Rajasthan brief

The state has adopted the NCERT textbooks. The English and the Social Science textbooks are being further revised keeping local context and challenges in mind.

Two rounds of teacher training have been conducted, for Maths, Science, Social Science and English. The teachers covered were the old teachers who have been very long in the system and the newly recruited teachers. The state had conducted a training needs assessment with the help of SIERT, which served as the basis of the training programs. The trainings focused on content as teachers were facing challenges in transitioning to the NCERT textbooks. The training modules were developed by RMSA with support from CTEs and IASEs. The Key Resource Persons were experienced trainers from SSA and were oriented by the CTEs/IASEs. All training programs were residential and away from the home district of the teacher; the trainings were conducted in seven different locations.

The Mission met with teachers who had undergone training and also with some of the key resource persons. The feedback received was mixed. Almost all teachers and KRPs felt that the residential nature of training was very useful and effective. Some teachers felt the need for expert resource persons who would be able to clarify difficult concepts with regard to content. Others felt that rather than content knowledge, training programs should focus more on the challenges that the teachers face in the classroom. There was a request for training on the development of teaching learning materials for secondary level, especially for science and maths.

The state had proposed to conduct a baseline assessment of the learning levels of children. This information could have helped to design better teacher training and support interventions. This proposal was however not approved by GOI during the appraisal process.

The state had also proposed development of e-learning modules which can be downloaded for teaching in remote schools with fewer teachers. This proposal was also disallowed by GOI during appraisal.

### ***Concerns***

The challenges in the classroom are primarily two-fold. Firstly, most of the children entering grade IX lack basic literacy and numeracy competencies, which most teachers thought was a result of the no-detention policy at the elementary level. Teachers are not sure of how to address the needs of these children and bring them up to grade IX level. Secondly, the teachers find the NCERT textbooks challenging, especially their constructivist approach. The fact that the Rajasthan Board has still not introduced CCE makes it more difficult as there is a constant pressure of completing the syllabus. The state needs to ensure that the teacher training and support systems under RMSA addresses these major challenges that teachers face.

The classroom processes in the schools visited by the Mission were mostly traditional, chalk-and-talk method. Teaching learning materials were not common, though in a few cases the team observed effective use of lab equipment. The teachers and principals were however unanimous that the laboratory room and the equipment bought through the annual grants are very useful (the State had used RMSA funds to purchase equipment, even though a science lab was not available, so that students could have access to practical science work).

The Mission could not see any effective use of the library in the schools visited. All schools had some form of library, even before RMSA. However, all the libraries visited suffered from the following drawbacks:

- Absence of a dedicated library period. The library was only used during recess or if a teacher was absent
- Absence of a librarian; only senior secondary schools have librarians
- Accessibility of books were severely restricted for students as the books were locked up in cupboards, the keys to which were with the librarian or the Principal. There was no system of proper display of books.
- The atmosphere of the library was uninviting and hardly encouraged children to read. Most libraries had cupboard full of old and unused books, creating a depressing environment.

Teachers also had no clue of the use and importance of the Art & Craft room, though every school is being provided with one.

### **Recommendations**

- *The state needs to ensure that the teacher training programs address the immediate challenges that teachers are facing in teaching secondary grade students. Interventions that provide remedial support to students without the necessary grade level competencies can be explored.*
- *A robust teacher support mechanism needs to be put in place. The resource persons that conduct training are full time employees and cannot be expected to provide long term support and coaching to teachers. Setting up academic resource groups at the district level, with full time personnel, may be considered.*
- *Library has a very important role in developing reading skills and habit among children. It is important that the library be designed and operationalized in a manner that encourages children to read. The state should consider issuing guidance to the schools on how to operationalize a good library.*

### **Program and Financial Management**

#### ***Achievements and Good Practices***

Staffing at the State level for programme implementation is adequate, though there are still 13 sanctioned posts which are not filled.

Name of Post Sanctioned	Number of posts		
	Sanctioned	Filled	Vacant
SPD	1	1	0
ASPD	1	1	0
JD	2	0	2
DD	3	3	0
AD	6	5	1

Sr. A. O.	1	1	0
AAO	1	1	0
ACCTT.	1	1	0
Sr. En.	1	0	1
Ex. En.	1	1	0
A. En	1	1	0
J. En	1	1	0
MIS	1	0	1
Data Entry Operator	2	2	0
Jr. Acc.	4	1	3
Computer Operator	8	8	0
P.A.	3	2	1
UDC	2	2	0
LDC	4	1	3
Peon	11	10	1
Total	55	42	13

Source: RCSE presentation

The situation is more serious at the district level where only 160 out of 627 sanctioned posts are filled.

Name of Post Sanctioned	Number of posts (across all 33 districts)		
	Sanctioned	Filled	Vacant
DPC	33	31	2
ADPC	33	28	5
AAO	33	17	16
A. En	33	11	22
Jr. Acc.	33	4	29
J. En	33	10	23
Program Officer	99	0	99
LDC	66	8	58
Steno	33	0	33
MIS	33	0	33
Computer Operator	99	44	55
Peon	99	7	92
Total	627	160	467

Source: RCSE presentation

SEMIS data is available for 2009-10. The 2010-11 data has been collected but generation of reports is pending. The state attributed the delay to NUEPA not allowing the data to be entered on-line, requiring the state to separately enter the data off-line. For 2012-13, data collection is in process and is expected to be completed by end-February.

On community mobilization, the Mission was impressed by the level of community commitment to the schools visited; both in terms of presence during the visits (several of which took place in the evening) and in terms of financial support to the school. Rajasthan has a tradition of donation to social causes (*Bhamasah*) and the schools have largely benefitted from this tradition. Two good practices were identified: the district of Chittorgarh has instituted a School Adoption Programme, through which the District mobilizes private contributions to help secondary schools. Of particular interest is the design of the scheme which requires contributors to make contributions for 3 years, building sustainable support. A second good practice was the work of Hindustan Zinc which is using CSR funds, not simply to give

resources to schools, but has demonstrated innovations in building design and in filled specific subject teacher gaps (especially in mathematics and science).

The program monitoring is done through officers at the state level who are in charge of specific districts and keep track of all activities in the district. This is in line with the larger monitoring system for education programs in the state (Sambalam) where each education officer of the state government is required to spend a few days in the field, observe school functioning throughout the day, meet stakeholders and give a detailed report.

### ***Concerns***

The large number of vacancies at the district level is a major hindrance to effective program management. The state emphasized the Mission team that these posts cannot be filled because of the low level of MMER funds (only 2 percent).

The full RMSA documentation, which came into effect on 1 April 2012 or before, was available at the RCSE but not consistently at the District level, and was not found at the school level. For example, the Financial Management and Procurement Manual was not available in the schools where a lot of financial transaction takes place. A copy of the Manual was available at the district level but being in English restricts its readability for many staff. This information needs to be accessible to all so that these actors can fulfill their responsibilities under the Programme.

The Mission was concerned to learn that all accounting is being carried out manually.

### ***Recommendations***

- *That the Government of India review the proportion of funds that can be utilized for staffing costs.*
- *That the State Government move to a software-based accounting system.*
- *It is recommended that all documentation which is currently in English be translated and distributed down to the school level.*
- *The RCSE Budget, Finance and Accounts Rules should be reviewed to ensure that they are consistent with the RMSA Programme rules.*

## **Members**

1. Mr. Toby Linden (Member of World Bank)
2. Dr. Sourav Banerjee (Member of MHRD)
3. Mr. Bhoop Singh Yadav (DD RSCE Jaipur)
4. Dr. Govind Ram Shama (AD RSCE Jaipur)
5. Mr. Richpal Singh (AEN RSCE Jaipur)

### **Date :- 16.01.2013**

Jaipur To Bandar-Sindri	Mr. Ramnivas Vaishnav(Acting Principal) GHSS Bandar-Sindri
Bandar-Sindri To Kishangarh(G)	Mrs. Sandhya Chouri (Acting Principal) GGHSS Kishangarh
Kishangarh(G) To Kishangarh(B)	Mr. Surajkaran Yadav (Acting Principal) GHSS Kishangarh
Kishangarh To Ajmer, ADPC Office	Mr. Ajay Gupta ADPC Ajmer
Ajmer, ADPC Office To Ghanahera	Mr. Laxmi Niwas (HM) GSS Ghanahera

### **Date :- 17.01.2013**

Ajmer To Vijaynagar	Mrs. Sushila Amarwal (Principal ) GGHSS Vijaynagar
Vijaynagar To Hurda(B)	Dr. Roopa Pareek (Acting Principal ) GHSS Hurda
Hurda(B) To Hurda(G)	Mrs. Charumati Shama (Principal )GGHSS Hurda
Hurda(G) To Sareri	Mr. Anil Choudhary (HM)GSS Sareri
Sareri To Bansen (Chittorgarh)	Mr. S.N. Laxkar (Acting Principal ) GHSS
Bansen	

### **Date :- 18.01.2013**

<b>Meeting -</b>	<b>Dr. Ravi Jain</b>	<b>District Collector</b>
District Collector Office To GGHSS Chittorgarh		Mrs. Kalyani Dixit (Principal) GGHSS
Chittorgarh (City)		
GGHSS Chittorgarh To ADPC Office	Mr. S.N. Sharma	ADPC Chittorgarh