



INDIA
RASHTRIYA MADHYAMIK SHIKSHA
ABHIYAN (RMSA)

Fifth Joint Review Mission
27 January to 9 February, 2015

Aide Memoire

Table of Contents

1. Contents

Acronyms.....	3
1. Introduction-----	6
2. Overview and Key Issues	7
3. Mid-term review // Action Taken Reports	10
4. Progress towards RMSA Goals.....	13
5. Teacher Management and Development.....	20
6. Vocational Education.....	23
7. Unified District Information System for Education (UDISE)	29
8. Programme Management	33
9. Organisation of the Joint Review Missions.....	42

Annexes

Terms of Reference (ToRs) & Agenda

Check List

Action Taken Report (ATR)

List of Members

Results Framework Document

State Reports:

- **Assam**
- **Gujarat**
- **Haryana**
- **Tamil Nadu**
- **Uttarakhand**

Acronyms

AWP&B	Annual Work Plan and Budget
ASER	Annual Survey of Education Report
ATR	Action Taken Report
BE	Budget Estimates
BRC	Block Resource Centre
CAL	Computer Aided Learning
CBSE	Central Board of Secondary Education
CCE	Comprehensive and Continuous Evaluation
COBSE	Committee of Boards of Secondary Education
CTE	College of Teacher Education
CTET	Common Teacher Eligibility Test
CTS	Child Tracking Survey
CRC	Cluster Resource Centre
CWSN	Children with Special Needs
DCF	Data Capture Format
DFID	Department for International Development
DIET	District Institute of Education and Training
DISE	District Information System for Education
DP	Development Partner
DoSEL	Department of School Education & Literacy
Ed.CIL	Educational Consultants India Limited
EMIS	Educational Management and Information System
EU	European Union
EVS	Environmental Science
FM&P	Financial Management and Procurement
GER	Gross Enrolment Ratio
GoI	Government of India
GIS	Geographic Information System
GPS	Global Positioning System
IASE	Institute for Advanced Studies in Education
ICT	Information Communication Technology
IDA	International Development Association
IEDSS	Integrated Education of the Disabled at Secondary Stage
IGNOU	Indira Gandhi National Open University
IPAI	Institute of Public Auditors of India
IRT	Item Response Theory
IT	Information Technology
ITPDP	In-service Teacher Professional Development Programme
IUFR	Interim Unaudited Financial Report
JRM	Joint Review Mission
KGBV	Kasturba Gandhi Balika Vidyalaya
MCS	Model Cluster School
MHRD	Ministry of Human Resource Development
MI	Monitoring Institutions
MS	Mahila Samakhya
NAS	National Achievement Survey
NCERT	National Council of Educational Research & Training
NCF	National Curriculum Framework

NCFTE	National Curriculum Framework for Teacher Education
NCTE	National Council for Teacher Education
NE	North East
NER	Net Enrolment Ratio
NGO	Non-Governmental Organisation
NIAR	National Institute of Administrative Research
NIC	National Informatics Centre
NPE	National Policy of Education
NPEGEL	National Program for Education of Girls' at Elementary Level
NLAS	National Learning Achievement Survey
NUEPA	National University of Educational Planning & Administration
OBC	Other Backward Caste
OECD	Organisation for Economic Co-operation and Development
OOSC	Out of School Children
PAB	Project Approval Board
PGT	Post Graduate Teacher
PISA	Programme for Student Assessment
PMIS	Project Management Information System
PRI	Panchayati Raj Institutions
PTA	Parent Teacher Association
PTR	Pupil Teacher Ratio
QMT	Quality Monitoring Tool
RCI	Rehabilitation Council of India
REMS	Research, Evaluation, Monitoring and Supervision
RIE	Regional Institute of Education
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
RMG	Repair and Maintenance Grant
RTE	Right to Education
SC	Scheduled Caste
SCERT	State Council for Educational Research and Training
SDP	School Development Plan
SEMIS	Secondary Education Management Information System
SES	Selected Educational Statistics
SFD	Special Focus Districts
SFG	Special Focus Groups
SIEMAT	State Institute for Educational Management and Training
SMC	School Management Committee
SMDC	School Management and Development Committee
SPO	State Project Office
SPD	State Project Director
SSA	Sarva Shiksha Abhiyan
SSHE	School Sanitation and Hygiene Education
ST	Scheduled Tribe
TCF	Technical Cooperation Fund
TE	Teacher Education
TET	Teacher Eligibility Test
TGT	Trained Graduate Teacher
TLE	Teacher Learning Equipment
TLM	Teaching Learning Material
TOR	Terms of Reference
TSC	Total Sanitation Campaign
TSG	Technical Support Group
UAM	Universal Active Mathematics

UC	Utilization Certificate
UEE	Universal Elementary Education
UDISE	Unified District Information System for Education
UPS	Upper Primary School
UT	Union Territory
VEC	Village Education Committee
VER	Village Education Register
WSDP	Whole School Development Plan

2. Introduction

- 1.1. Rashtriya Madhyamik Shiksha Abhiyan (RMSA) is a Programme of the Government of India, implemented in partnership with the State Governments with the main objective to make secondary education of good quality available, accessible and affordable to all young persons. The scheme seeks to enhance enrolment in classes IX and X by providing a secondary school within a reasonable distance of every habitation, to improve quality of education imparted at secondary level by ensuring all secondary schools conform to prescribed/ standard norms, to remove gender, socio-economic and disability barriers and to achieve near universal enrolment in secondary level education with the GER exceeding 90% by 2017, i.e. by the end of the 12th Five Year Plan. The Programme was launched in 2009.
- 1.2. RMSA is supported by domestic resources, supplemented partially by external funding from the Development Partners – the World Bank’s International Development Association (IDA) and United Kingdom’s Department for International Development (DFID). As per the respective Agreements, the GoI and Development Partners (DP) carry out a Joint Review Mission (JRM) twice a year. The main objective of the JRM is to review progress in the implementation of the programme with respect to RMSA’s goals, with a particular emphasis on a small number of issues, and to discuss follow-up actions in the light of the Terms of Reference (TOR) agreed upon for each JRM.
- 1.3. The Mission put special focus on their work on the following aspects of the programme:
 - Vocational /Skills Education in schools (deliberate on the current Status and identify themes on Vocational Education / Skills Education in schools for the subsequent JRMs),
 - UDISE (UDISE Implementation Structure).
 - The RMSA JRM would also look at TCA work with regard to teachers’ management in Secondary Education Sector and teacher training under RMSA.
- 1.4. This is the Fifth JRM of RMSA and was held from 27th January to 9th February 2014. The Terms of Reference (ToR) for the Mission and details of the Mission composition are attached at Annex 1. This is a field based review, and five States (Assam, Gujarat, Haryana, Tamil Nadu and Uttarakhand) were visited.
- 1.5. The Mission would like to acknowledge the great work done by the teams in MHRD, TSG, the five states visited (including the teams at district and school levels) and the detailed information made available to the Mission. The Mission has greatly benefited from the field visits and interactions with students, community, teachers, and district and state level teams. The Mission would like to put on record the Mission’s gratitude to all the above mentioned.

3. Overview and Key Issues

- 2.1. The Abhiyan approach for galvanising school education was perhaps necessary because of the sheer dimensions and variety of complexities involved. At the elementary level, it had also to take a statutory shape because of the state policy in this regard being enshrined in the Constitution of India as a Directive Principle. Significantly, at the secondary level it has emerged as a national mandate even without a constitutional or statutory prescription. The impact has been so impressive that even at the higher education level the same mode has been adopted. Only, the gap at the senior secondary level remains to be bridged. Although it is not directly an issue of RMSA concern, as a common structural feature of the Mission mode adopted for galvanizing school education, it will be necessary to address this issue soon carefully also because +2 is an important terminal point not only for entry into the labour market but also for launch into the higher (liberal) education system as equally for vocational and technical education streams.
- 2.2. It will however, be useful here to recognize the need for better attention to sequential synchronization between definite stages of education on a holistic basis since inadequacy of this has been a matter of concern in some places in some respects. This overall coordination apart, provision of appropriate flexibilities for operational smoothness has to be well appreciated. Strict enforcement of 'models' tends to sap local initiatives (and consequently, enthusiastic involvement), and rigid prescription of norms may give rise to avoidable inconsistencies.
- 2.3. Any massive Programme like this will encounter operational glitches. But, it has unhesitatingly to be accepted that RMSA has registered spectacular success in the realization of its objectives. The Department of School Education and Literacy in the Ministry of HRD, through its receptive approach and enlightened, soft handed regulation, also has helped to iron out many problems and make for a harmonious implementation. Availability of and access to secondary schools, enrolment/attendance/ retention in classes, removal of hurdles in the way of promoting social equity, all round attention to promoting quality, introduction of innovative pedagogic initiatives, inclusion of all categories of schools in the programme and integration of all allied activities with the Abhiyan have all received appreciative attention.
- 2.4. There have, of course, been some rumblings about the pattern of funding and the fluctuating financial support. Going by the kind of attention given to and the level of progress registered in variegated factors, however, it can be confirmed that these were due more to inevitable budgetary realities and not any vacillations in basic commitments.
- 2.5. For any programme of this magnitude to be planned and organized in an orderly manner there has to be a good database. Happily, UDISE has maintained its steady progress to provide that support. Appropriately, therefore, it has come to be recognized as the official educational statistics system. Even as we applaud its sustained progress in terms of collection, compilation, validation, analysis, dissemination and availability, we wish to make some suggestions for its better use:
 - Integration of data relating to SSA and RMSA should pave the way for promoting sequential synchronization between steps referred to above.
 - In view of its growing stature and, bearing in mind the significance of preserving, protecting and, promoting availability of authentic statistics of quality, as was recommended in the last JRM, UDISE should be elevated in importance and (along with other related systems) and be given the status of an independent, Autonomous Educational Statistics Agency.

- In the formats adopted, sufficient space has been provided for States/UTs to add entries of local relevance. These have continued to remain un- (or, under-) exploited. More strident steps may have to be taken to help States/UTs to avail of this facility.
 - Availability of data need not be confined to UDISE analyses. Raw data should be more conveniently available for direct, easy mining by all.
 - Compilation on basic parameters, as required by the Government may be done by UDISE.
 - The Government may require NUEPA (until any independent agency develops) to analyse the data with reference to identified parameters and provide Regionwise or Statewise or stagewise or schoolwise or topicwise projections.
 - The MHRD should help states/UTs in a more structured way to use UDISE data (in conjunction where possible with GPS) for planning, programming, monitoring and reviewing
- 2.6. We feel all the norms need not be enforced with uniform rigidity. Some norms may need some flexibility in application. The distance norm for location of schools, for example, can give rise to unanticipated inconsistencies if enforced rigidly. Various factors like availability of land, amenability of terrain, availability of students, availability of teachers, considerations of safety/security, availability of easy access to facilities like water supply and transportation, etc. have to be reckoned with. The implications of this should be addressed and appropriate flexibilities will need to be accommodated.
- 2.7. The advantages of upgrading an existing U.P.S. are obvious:
- Students are readily available on the spot.
 - Probability of total transfer of the cohort can almost be taken for granted.
 - Basic facilities/ structure exist; only incremental action is required.
 - Bonding between the school and the community pre-exists. Only, some additionality will be required.
 - Assurance of up-gradation of the UPS into a Secondary School may incidentally ensure retention of students (especially the girls) in the upper primary classes.
- 2.8. 'Inspections' (whether administrative or academic) are treated as 'management' activities and receive quantitative orientation. It will be necessary to reclassify and bring them categorically under the 'quality' umbrella. In order to lean supervisory personnel away from the quantitative perceptions that govern their performance at present, it will be useful to draw up 'Inspection Manuals and train them in how to conduct inspections and when to look for. It may also be necessary to prescribe formats of inspection reports so as to compel them to record descriptive inspection notes.
- 2.9. In academic inspections (i.e. inspections conducted by DIET faculty) also such formatting will be necessary because what happens at present is more verbal and quite cursory. If classroom observation is meant to identify weaknesses of pedagogy and suggest corrective measures, there should be documentary evidence therefor so that the teacher concerned can use the inspection note as a reference document and, so that also it can be used to assess the quality and utility of such inspections.
- 2.10. The academic inspections by DIET faculty and others should also focus on the best practices and/ or innovative pedagogic initiatives circulated by the Department/ Directorate. This is not seen to be operating at the ground level in an organised way.
- 2.11. Likewise, 'training' tends to get viewed more as an administrative/ management responsibility and not so much of a quality input. Possibly, this misconception is the result of only a few peripheral items being listed under head 'quality' in the budget.

- 2.12. Because of its fundamental significance, we wish to reiterate ‘teacher training’ as a core quality factor and also make some related recommendations. Although, these have been dealt with in detail in the body of this report, they are considered serious enough to be singled out for specific reference as a key issue.
- Training should be need based.
 - Need assessment should not only be examination results based; it should be classroom observation based coupled with the need to incorporate best practices and innovative pedagogic initiatives.
 - The Master Trainers and Key Resource Persons should be sensitised about these assessments so that they can keep them in mind while conducting the training classes.
 - The course content preparation must also reckon with these assessments and address the related requirements.
 - The feed backs from trainees and the class room observations on them should be used also to assess the quality of work of MTs and KRPs.
- 2.13. Content-updating by school teachers cannot be taken for granted. Training courses for them, especially at the secondary level and more so at the senior secondary level, need to address not only pedagogic issues but also content enrichment. There will have to be large scale involvement of college teachers for this purpose. Such an arrangement will incidentally solve some ego problems about inter-se hierarchical levels of the (school level) trainers and the trainees.
- 2.14. On the subject of teacher training, we also wish to highlight a peculiar problem posed by some teachers in Tamil Nadu. Although this matter has been substantively dealt with later in this Report, it is considered to be worthy of citation here since it demonstrates our earlier observation about lack of attention to segmental – synchronization causing avoidable problems. We feel the Government should identify the synchronization points and fill up the gaps. In the meanwhile, as regards the problem faced by secondary school teachers of Tamil Nadu, it will be worthwhile to commission a longitudinal study of the 2 or 3 batches of ABL + ALM students passing through the secondary stage.
- 2.15. Integration of ICT with RMSA was an excellent initiative. Unfortunately, this has not gained roots in the programme. In the initial years this remained a rudimentary exposure to handling computers (not even computer- applications) entrusted to an outsourced agency. Even when this deficiency has been removed, the activity has not quite picked up. The fluctuating financial support has held it down in implementation. What with its overarching potential, this activity should qualify for a higher ranking in the hierarchy of activities and survive the budgetary excision.
- 2.16. In our reckoning, in fact, ICT should be expanded to cover ICT applications in subject teaching also. We realize, this will necessitate investment in additional equipment and some computer training for the subject teachers. But the advantages to accrue from this will far outweigh the additional expenditure. May be, the feasibility of this proposition can be examined through a pilot-project.
- 2.17. Introduction of Vocational Education in secondary schools has been accepted by all states. But, their level of understanding of the implications cannot be taken for granted. Also, it is not clear whether all segmental synchronization requirements have been taken care of. In the thematic section on this subject later in this Report, this matter has been analyzed in detail to flag some of the anomalies and inconsistencies. It will be necessary for the Government to examine these issues and remove the inconsistencies.

4. Mid-term review // Action Taken Reports

- 3.1. The Government wanted this JRM to be a Mid-Term Review (MTR) of the RMSA Programme; and, accordingly, review the overall strategies and achievements against the objectives of the Scheme. This was also a recommendation of the Second JRM, when the Ministry commented (in the relevant Action Taken Report) that such an evaluation had been requested by the Planning Commission. The present JRM supports the idea of a thorough MTR.
- 3.2. The time constraints within which we had to operate did not leave us with any scope for undertaking such an elaborate exercise. Moreover, the documentary support was not designed to cater to such an exercise. That being so, the Mission completed its basic task of reviewing the RMSA with reference to the TORs given.
- 3.3. Nevertheless, the Mission approaches the MTR task preliminarily by reviewing the 'Recommendations' from the previous four JRMs, in the backdrop of the action taken thereon by the Government and state governments, to identify the major gaps in performance and the significant shortfalls in achievements. Based on this analysis, by deductive logic, the Mission has identified the objectives and strategies of the RMSA that are seen to be somewhat weak and that require a re-look. If the intention is to have a complete mid-term review, then further and deeper analyses of the experience of the RMSA Programme will be needed. These analyses can be reviewed at the next JRM.
- 3.4. Flexibility within the Programme: Reports from states and reviews of the AWPB and PAB documentation indicate that the RMSA Programme is planned and implemented in an input- and norm-driven way. States tend to propose a list of activities, picking up the various norms contained in the Programme documents.
- 3.5. The Programme as it is designed and implemented now necessarily has to apply the fixed norms. But some flexibility in implementation will make for better operational impact. Such flexibility, across wider parts of the Programme, would also encourage an outcome-orientation – states are best placed to decide how to achieve certain goals.
- 3.6. Previous JRMs have suggested some areas of flexibility: for example, that there should not be any requirement for all schools to receive the same size grant, since larger schools generally require larger resources. Similarly, some training programmes cost more than others and so spending on each individual teacher need not be the same. This flexibility could meaningfully be extended to other areas of the Programme. To date, however, states have not taken up these options (perhaps because they are unaware of them).
- 3.7. There is already one area of clear flexibility in the Programme and that relates to the Innovation activities, using the Guidelines placed on the RMSA website. To date, however, the take up of these activities has been extremely low (and the JRM is not aware of any approved proposals that have used the Guidelines). The MHRD has indicated to the JRM that states have been encouraged to use up to one percent of their allocation in a flexible way, not driven by norms. This is welcome, should be limited to academic areas and would seem a good vehicle for promoting Innovation activities.
- 3.8. Quality improvement strategies: Such a flexible and outcome-orientation is especially important in planning for improvements in quality. The MHRD guidelines rightly emphasize the need for holistic and coherent strategies for quality improvement and this has been a key part of the discussion with states during the PAB process. However, states need to go beyond simple activities such as excursions and science kits for any successful quality improvement strategy. In this regard, the planning guidance provided to states should be

reviewed to ensure it helps states think about a coherent strategy rather than simply going through the norms of the Programme.

- 3.9. It remains the case that the overwhelming majority of classrooms visited over successive JRMs evince traditional and uniform pedagogical practice of teachers lecturing from the front of the class. The heavy investment in teacher training through RMSA appears to have had very little effect on the learning experiences of Indian secondary school children. Without changing practices, children will continue to be unable to acquire the higher-order analytical and thinking skills that they need to be successful in their adult lives. Evidence from India and other countries suggests that teacher training by itself will not generally change classroom practice (even assuming the training is well-designed in the first place): ongoing support at the school level and clear accountability are also required.
- 3.10. The National Achievement Survey for Class X is a critically important activity under RMSA. It will provide essential information for the national and state governments to plan for quality improvement. However, the evidence to date suggests that state governments will need to do more – for example, it appears that no state has produced its own report for NAS cycles in elementary education. In secondary education, many states, with encouragement of the RMSA Programme, are embarking on their own assessments, though capacity to carry out and more especially utilize high quality assessments remains thin on the ground.
- 3.11. Spending on civil works and teacher salaries constitute the vast bulk of spending. Notwithstanding the fact that part of teachers' salaries can be counted towards quality inputs, given the budgetary processes in force, we still feel that it would be good to prescribe a minimum percentage for investment in activities considered to be of greater impact on the quality of education.
- 3.12. Linkages between different Centrally Sponsored Schemes: A good deal of progress has been made in this area – and MHRD reports that this year's PABs will consider SSA, RMSA and Teacher Education together. Previous JRMs have also noted some areas of synergy – such as UDISE and some states with a single Implementation Society. Despite this, the evidence of visits to states show that very little of the range of possible synergies are being exploited. Learning across SSA and RMSA teams remains sporadic and joint planning is rare.
- 3.13. Identification and dissemination of Good Practice: The JRM is pleased to note the rapid progress that MHRD has made on the recommendation of the last JRM that a repository of good practice, with appropriate quality assurance mechanisms, be put in place. To date, however, this is rudimentary and, for example, there is no explanation on the RMSA website of how these practices were identified, why they are considered good practice (what has been their impact), and what seem to be the key factors that make this practice successful. Only with this kind of information will these practices be useful for others. Of course, after this, there will need to be a strategy for sharing and disseminating these practices.
- 3.14. Use of UDISE and other data sources: Successive JRMs have remarked on the excellent progress that has been made in collecting data from schools and producing tabular reports; and the JRM was pleased to learn that UDISE will now be the official source of education statistics. Much more needs to be done, however, to utilize the available data by states, at the state, local and school levels.
- 3.15. Planning for school infrastructure: The JRM commends the RMSA guidance which identifies the need to develop individual schools fully (making them 'complete') rather than small improvements across multiple schools (though the data clearly shows that a lot of work is needed before even the majority of Indian schools can be considered complete).

- 3.16. Moreover, the focus on up-gradation of schools rather than establishing wholly new schools has been important to provide cost-effective solutions for expansion. Indeed, there appear to be major missed opportunities to share resources across different schools located on a single campus: such as common libraries, laboratories, teachers' rooms and toilets, for example. In fact, a major opportunity is for, say, the Hindi teachers across primary, upper primary and secondary schools on a campus to work together to enhance their professional practice and ensure stronger and smoother transitions for students.
- 3.17. However, several issues related to school planning have emerged during the course of previous JRMs which deserve further attention. Chief amongst these is the 5km 'rule' (actually, this benchmark is just a way for MHRD to be able to ratio RMSA allocations, but states are free to adopt any distance, greater or smaller than 5 km). One of the Programme's goals is tied to this rule – with a habitation deemed unserved beyond this distance (though an important development is that the presence of aided schools is considered when determining whether a habitation is served).
- 3.18. However, the new schools that have been established have tended to be small in terms of the number of pupils. Small schools find harder to offer a full range of curriculum options – both general and vocational – to students. In the siting of secondary schools, therefore, consideration should be given to increasing the average size of schools.
- 3.19. Further, the 5 km rule also affects teacher deployment. States tend to give priority to ensure there is one teacher for each core subject to a new school. Where such schools have fewer pupils, this results in lower PTRs – which may be considered good for those pupils, but these fewer pupils gain at the expense of much larger numbers of pupils in bigger schools where the PTRs are bigger (in fact, PTR increases with size of school). The TCA is currently conducting a study in this area which should provide important evidence for further policy considerations on this issue.
- 3.20. There is insufficient attention to the quality of the infrastructure being developed under the Programme. The UDISE data capture format should be enhanced to provide guidance to schools about how to record their facilities (what does a functioning toilet actually mean, for example).

5. Progress Towards RMSA Goals

Goal 1: To improve access to secondary schooling

- 4.1. The mission takes note of the positive development that the country as a whole has registered an increase in the total enrolment at secondary level from 346 lakhs in 2012-13 to 372 lakhs in 2013-14. This increase has also come with a notable increase in GER from 67 to 77¹ and in NER from 42 to 46 during the same period. This positive shift in enrolment indicators have been registered despite a small downward shift in the transition rate, which indicates that a larger proportion of students from Class VIII is not entering to the secondary section. This needs to be investigated further and checked.
- 4.2. Clearly the situation varies from one state to the other: amongst the five states visited, Assam and Tamil Nadu registered an increase while the remaining three states witnessed a decline in transition rates during the same period. Gujarat also needs to correct its transition rate statistics as the reported figure of 200 per cent in 2012-13 cannot be true. Haryana and Uttarakhand also reported very high transition rates in 2012-13, something that needs to be verified (Table 1).
- 4.3. There is a particular concern in relation to quality which is the low number of schools with a full complement of subject specific teachers. According to the RMSA RFD this is currently below 25%. The progress on provisioning of core infrastructure facilities is also a matter of concern, with only 3.4 percent of schools with the expected facilities, this proportion being less than one per cent for government schools (source: RFD presentation made to the JRM).

Table 1: Access to Secondary Schooling

	Total enrolment at secondary level (In Lakhs)		Transition rate (VIII to IX)		GER		NER	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
All India	346.40	372.97	92.67	91.95	67.35	76.64	41.93	45.63
Assam	8.65	9.10	77.30	82.74	61.86	71.21	43.80	50.32
Gujarat	15.31	17.19	200.01	87.80	63.22	74.50	41.94	44.88
Haryana	8.15	8.48	99.38	96.73	83.43	86.21	46.24	46.20
Tamil Nadu	22.03	22.60	89.29	92.90	90.17	92.50	59.80	61.59
Uttarakhand	3.90	3.91	100.00	95.99	92.19	88.18	52.25	46.37

Source: UDISE (Flash Statistics 2012-13 & 2013-14)

- 4.4. This Mission noted good progress on using GIS mapping combined with satellite imagery to decide on school location in order to ensure optimal size of schools as well as equitable distribution of schooling facility across geography. Almost all states visited reported the use of GIS to decide the location of new schools. Assam is also using mobile phones as a means to reach out to all teachers and using that for verification of data. Gujarat has also vetted GIS based planning with vetting by Gram sabhas. Tamil Nadu reported coupling of DISE with GIS to be able to analyse specific area wise issues. Uttarakhand has also initiated the process but faced some terrain related bottlenecks. Since GIS mapping in combination with UDISE and NAS (National Achievement Survey) data has high potential of use in

¹ These figures may need to be verified since this a very large increases in GER in one year without apparently commensurate increases in total enrollment; moreover, the figures for Uttarakhand in Table 1 below indicate that total enrollment has risen but GER has declined.

diagnosing the area specific issues and arrive at solutions, a future JRM could go deeper into this sharing some of the good practices emerging from the states.

Goal 2: To bridge gender and social gaps

- 4.5. The country as a whole has achieved the goal of reaching one or higher than one if one takes the gender parity and gender equity indices into account. However, for every 100 boys only about 90 girls are enrolled in secondary sections; this can partially but not entirely be attributed to adverse sex ratio. In fact the states like Gujarat and Haryana with highly adverse sex ratios are also worse performers when it comes to the parity and equity indicators; this means girls are doubly disadvantaged in these states: their number is low in the elementary school population, but it becomes even lower than that in secondary education (Table 2).
- 4.6. It is important that states are encouraged to move beyond use of averages and undertake a more detailed disaggregated analysis of their gender related indicators and develop strategies accordingly. For instance, though both Gujarat and Tamil Nadu have built girls' hostels that are likely to start in the coming academic session, they still do not have detailed strategies in place for ensuring how the girls from most needed contexts would be identified or how these hostels would be developed into giving the students transformational experiences to enable change in their aspirations and their parents' attitudes towards girls' education. Greater and better linkages with SSA/KGBV and exposure to possibilities that a residential living offers could be encouraged by the RMSA Bureau in Delhi.

Table 2: Progress in selected equity related indicators

	Ratio of girls to boys in total enrolment in secondary education		Gender Parity Index (GPI) of GER in secondary education		Gender Equity Index (GEI) in Secondary Education		Social Equity Index (SEI) in Secondary Education (SC)		Social Equity Index (SEI) in Secondary Education (ST)		% CWSN in total enrolment	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
All India	0.89	0.90	0.96	1.00	0.996	1.002	1.000	1.006	0.988	0.999	0.63	0.61
Assam	1.09	1.10	1.14	1.18	1.08	1.09	1.08	1.06	1.03	1.02	0.48	0.54
Gujarat	0.70	0.69	0.79	0.81	0.89	0.89	0.92	0.92	0.95	0.97	0.73	0.67
Haryana	0.80	0.79	0.90	0.93	0.99	0.99	1.03	1.03	NA	NA	0.85	0.07
Tamil Nadu	0.94	0.94	0.99	1.02	1.01	1.01	1.01	1.01	1.02	1.02	0.44	0.35
Uttarakhand	0.93	0.91	0.97	0.97	1.00	1.00	0.98	0.99	1.03	1.03	0.40	0.33

Source: UDISE (Flash Statistics-2012-13 for ratio of girls to boys; Enrolment: Flash Statistics 2012-13 & 2013-14; Population Projected by MHRD 2012-13 & 2013-14)

Notes: (1) GPI of GER at secondary level in year t = (GER of girls, Grades IX-X in year t / GER of boys, Grades IX-X in year t); (2) Gender Equity Index at Secondary Level in year t = Share of girls in enrolment to total enrolment in grades IX-X in year t / Share of girls in the age group 14-15 in the total 14-15 age group population in year t; (3) Social Equity Index at Secondary Level (SC) in year t = Share of SC enrolment in the total enrolment in grades IX-X in year t / Share of SC population (age group 14-15) in the total 14-15 age group population in year t; (4) Social Equity Index at Secondary Level (ST) in year t = Share of ST enrolment in the total enrolment in grades IX-X in year t / Share of ST population (age group 14-15) in the total 14-15 age group population in year t.

- 4.7. Social equity indices for both SC and ST groups, based on enrolment indicators, have also registered progress in the country as a whole. Among the states visited, Gujarat presents the poorest picture (Table 2), something that deserves attention. The enrolment of children with special needs in secondary education continues to have small share of less than one percent;

in fact this has slightly gone down between the years 2012-13 and 2013-14. The proportion is lower than the national average of 0.61 in all the five states visited. Mainstreaming CWSN at the secondary stage is a huge challenge where the curriculum is both complex and overloaded even for the general category of students. A greater collaboration with SSA and a deeper engagement with interim strategies could help the states in improving their record in this context.

- 4.8. Table 3 shows that the enrolment in government schools has declined whereas that in private unaided and aided has increased. This is a cause of concern as the latter are largely located in urban and semi-urban areas and the representation of the poorest/girls is known to be lower there. Again, a deeper engagement with possible, contextual, cost-effective solutions is needed to increase the participation of the poorest. One solution could be in the form of improved and secure transport services as transport costs and concerns are still quite high among parents. The consideration of secure transport services as a valid RMSA expenditure should be seriously considered.

Table 3: Distribution of Enrolment across management of schools at Secondary Level

Enrolment (in Millions)				
	2010-11	2011-12	2012-13	2013-14
Government	12.1	12.9	18.2	16.9
Aided	8.8	10.5	7.9	8.5
Unaided	10.5	9.6	8.2	11.6
Central government	0.2	0.2	0.4	0.3
TOTAL	31.6	33.2	34.6	37.3

Source: RFD presentation made to the JRM

Goal 3: All children retained in Education System

- 4.9. One of the indicators of the retention in the system at secondary level is the graduation rate. Nearly 81 per cent of those who enroll in grade IX in 2012-13 took grade X examination in 2013-14, and this proportion has been increasing over the years (Table 4). However, the proportion is the lowest for government schools and highest for aided, closely followed by unaided schools. Nevertheless, the mission takes note of the fact that all management schools have reported improvement and the rate of improvement being the highest for government schools. This is indeed a positive development but it would be important to see inter-state disparities and identify regions that need greater attention.

Table 4: Graduation rates across school management

Graduation rate* (percentage)	2010-11	2011-12	2012-13	2013-14
Government	46.4	48.6	59.2	72.1
Aided	78.1	71.0	75.4	89.0
Unaided	85.3	74.5	75.6	87.6
Central government	48.6	68.4	70.4	73.4
TOTAL	63.7	67.6	75.3	81.0

*those who enrolled in grade IX in year t appearing for the Board exams in grade X in year t+1

Source: RFD presentation made to the JRM

Learning Equity

- 4.10. **India has made impressive gains in access to schooling. For those gains to pay dividends school attendance must be converted to student learning.** This is keenly understood in MHRD. Initiatives such as the National Achievement Survey, the development of a school standards framework and attention to the critical area of school leadership are all in train. However there is a long way to go to transform these welcome initiatives into practical action which leads to concrete results on the ground.
- 4.11. **A common concern expressed by teachers to all state missions was that the majority of grade 8 elementary school graduates entered secondary school without the foundational knowledge to cope with the grade 9 syllabus.** This clearly is a major concern and warrants urgent and targeted remedial action. In some states ‘bridging camps’ are being held during the vacation prior to graduation to junior secondary. Other complementary strategies could include greater coordination and collaboration between grade 8 and 9 teachers over the course of the year. This could be further strengthened by school clusters which share resources – i.e. the creation of secondary schools with a defined set of feeder schools. For this to be institutionalized there would need to be coordinated guidance from SSA and RMSA in a raft of areas (from GIS mapping to define the secondary, elementary school feeder clusters) to agreement on funding arrangements for shared training and resourcing. Already, those elementary and secondary schools which share a campus can work more closely together. Special funding under SSA and RMSA could be put aside for joint working.
- 4.12. **Field observations and analysis of NAS data indicates that considerably more than 20 percent of students (the current RMSA funding norm for financing remedial education) require remedial support to bring them to a level of learning where they can cope with the secondary school curriculum.** There are a range of possible strategies to address this challenge – none mutually exclusive: (i) review/revise the 2005 curriculum; (ii) closer elementary/secondary collaboration / better preparation of students during elementary school; and, (iii) a lifting of the 20% funding cap on remedial training. Of these the lifting of the 20% cap is in the remit of the RMSA team – devising a funding option that enabled states to request and deploy remedial funds driven by the needs of children in schools and classrooms at the local level – rather than a fixed 20% ceiling would be worth considering.
- 4.13. **State average pass rates are not a reliable indicator of secondary student performance.** State average grade 10 board pass rates which commonly range between 60-80% are commonly cited as evidence that all is well with secondary schooling. However further interrogation of data suggests this is an erroneous conclusion for three reasons: First and most importantly, State averages hide significantly lower pass rates among small, rural and schools serving the most disadvantaged. As an example in Gujarat state, whilst the pass mark across the State was reported averaging 60-65%, the schools visited by the JRM commonly had pass rates around 30-40%; and there were incidences of schools having an 88% failure rate in some years². Secondly, the practice of schools only entering grade 10 students who are likely to pass thereby ensuring that school pass rates are artificially high. (It is important to note that this situation is common across India and not specific to

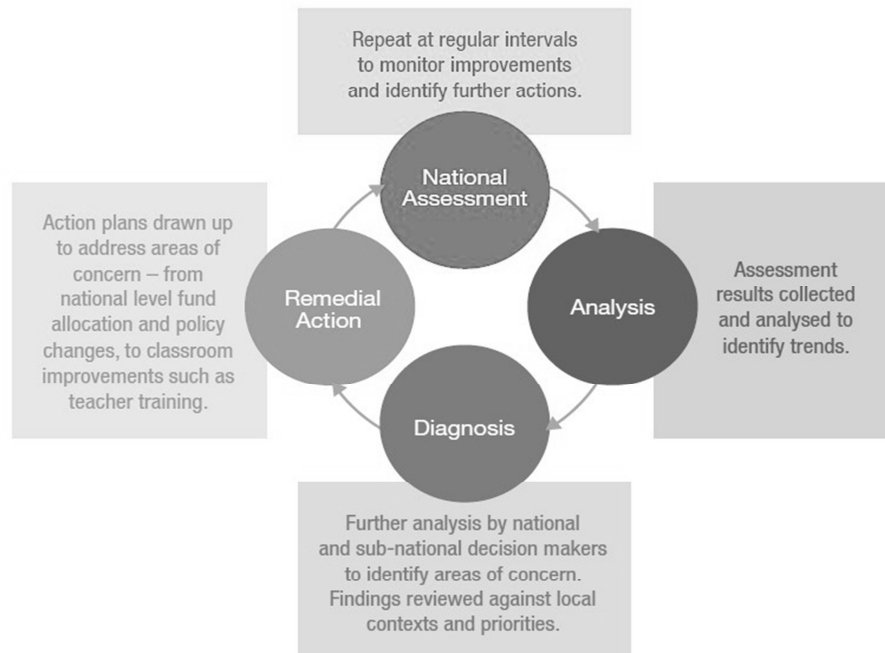
² In addition, the pass rates are only for those children who actually take the exam – as shown above, according to UDISE data, in government schools more than 25 percent of children who enroll in Class IX do not take the Class X exam the following year.

Gujarat. The RMSA RFD reports that less than a quarter of all government schools have a full complement of specialist teachers). The use of state pass averages is therefore likely to mask important differentials in performance between subjects, school types and gender and social groups. A situation where up to 50% of students in any one school are failing their exams is a serious inefficiency and waste of human talent. To realise equity in learning greater disaggregated interrogation of state board exams is required and this then to inform remedial action. Lastly, it should be noted that the national average pass rate is a meaningless figure given that state board examinations are not comparable.

- 4.14. **Shortage of subject teachers is a predictor of poor exam performance.** Passing of the grade X board exam is determined by the composite score from all subjects a student takes. Thus any student attending a school without a full complement of specialist teachers will be at a distinct disadvantage in the examination. Without a specialist teacher it is predictable that students would not meet their potential in this subject and therefore under achieve in the State board exam. Shortfall in specialist teachers (notably science and maths and languages) is common across India. In many instances this may be further exacerbated by sub-optimal teacher deployment. In combination this is likely to be contributing to high levels of exam failure / under performance particularly of the most disadvantaged sections of the population.
- 4.15. **Improving student performance for the most disadvantaged will require particular attention to subject specific teacher shortages, teacher preparation and teacher deployment.** It is recognized that addressing these issues is politically challenging and will not happen overnight – they are however critical for the continuing evolution of India’s education system. Important interventions that could be considered would be (i) greater disaggregated analysis of exam pass rate data by geography, school location/ size, subject, gender, and disadvantaged group (iii) closer attention to subject specific teacher shortage/ recruitment (iii) exploration of the potential for teacher workforce deployment to provide a better subject teacher coverage across schools (iv) and improved teacher preparation and training particularly in Maths, Science and languages.
- 4.16. **MHRD has rightly focused on the potential of ICT and the internet to enhance school administration, student learning and teacher education.** While good progress has been made in administrative areas such as UDISE and GIS –the potential of ICT is not being harnessed in schools or for teacher education. This JRM found evidence consistent with the observations in previous JRMs that ICT use in schools is mainly restricted to use for administrative purposes and for providing students with basic IT literacy. However, there is potential for ICT to do much more, especially in integration into all subjects in the curriculum, in teacher training and support, in enable students’ self-learning and in providing education to CWSN. In addition, significant resources have been invested and are likely to be invested in the future; and yet planning for these costs is at a rudimentary stage. Accompanying this must be greater attention to the practical challenges of providing, powering and maintaining ICT equipment as well as ensuring internet connectivity. Overall it is felt that investing time and money in developing effective ICT use would be a more productive investment than spending on Science and Maths kits, which, given there are no practical exams in the grade X exam seem to be largely unused. Given these facts, a thorough review at a future JRM of the use of ICT is warranted and new directions charted. In the meantime, the AWPB process can be used to highlight the importance to states of using ICT in new ways to enhance the quality of education.
- 4.17. **The mission appreciates the work of NCERT and TCA on making NAS both more scientifically robust and accessible.** Further work is needed to (i) ensure its greater use (ii) to ensure the data is properly archived and available through a public facing website. The mission looks forward to the results of the NAS Class X – which will give further insights

on learning at the secondary level. It is hoped that NCERT will make further strides in both the presentation of data – particularly on the variation of learning performance across schools and states. It is also hoped that NCERT will rise to the standards set by NUEPA’s UDISE web portal and develop a robust system for both archiving the NAS data and making it available to the public through a public facing website. As NAS uses item response theory, its data is comparable over time – thus the potential for valid comparison of learning performance will grow with each successive survey. On this it is worth repeating the words of the 4th JRM that measurement alone is not enough – remedial action based on robust evidence is at the heart of effective system change (see fig X). At State level administrations seem largely unaware of NAS findings further efforts are needed to both disseminate and help states utilize NAS findings to strengthen education performance.

Fig X Cycle of analysis and remedial action



- 4.18. **School standards, improvement and leadership:** NUEPA made a short presentation to the JRM on ongoing work on school standards and school improvements system and school leadership. These are two critically important and interconnected areas. Improved school performance will be driven by a more informed accountable, dynamic and autonomous school management. The mission was encouraged by NUEPA’s emphasis that their approach would not be based on an input based compliance audit but rather engage school management in defining and working towards its own goals. This is very much the approach already taken in some states such as Karnataka and Madhya Pradesh. NUEPA may wish to engage and learn from these programs and collaborate with associated work done in NCERT to accelerate their delivery.
- 4.19. **A National Mandate for School Standards/School Leadership?** A fundamental question associated with both these important NUEPA programmes is what official status they will have. Will school standards be nationally applied or will they be guidance to be deployed at the states’ discretion? Will the school leadership programme involve certification? If so will this be a requirement for promotion to the position of secondary school principal? (A common practice when trying to drive up the professionalism of school management.)

These questions are beyond the remit of the JRM team; however, they will need to be answered if these important initiatives are to achieve traction and deliver maximum impact.

Recommendations

- Rec. 1. Redouble efforts to ensure interrogation of available data including: sense checking of year on year trends and variances in performance within average figures and use of analysis to inform action.
- Rec. 2. Consider the inclusion of safe transport schemes as an eligible RMSA expenditure.
- Rec. 3. Review the 20% special needs funding rule – promote a more needs based approach to remedial teaching in collaboration with the SSA programme.
- Rec. 4. The percentage of schools with the full complement of subject teachers should be a key performance indicator of the RMSA programme; this indicator should replace PTR.
- Rec. 5. Request NCERT to develop a web based portal so that there is wide availability of NAS data and supporting information on how it can be used to inform remediation strategies
- Rec. 6. NCERT should work more intensively with SCERTs (and other state level bodies as necessary) to understand the significance and the use of NAS data and to conduct robust state level assessments.
- Rec. 7. A thorough review of the use of ICT at the secondary stage, both for administrative and learning purposes should be carried out, with a view to identifying cost-effective and sustainable solutions.
- Rec. 8. A study is needed to understand why significant numbers of children are enrolling in Class IX but not taking the examination in the following year, and whether this is an artifact of the data (that children are taken the exam at private schools in UDISE) or some other reasons.
- Rec. 9. Monitor the amount of resources allocated for and spent on activities supporting quality improvement, beyond civil works and teacher and staff salaries. MHRD may consider whether to prescribe a minimum percentage of spending on these activities.
- Rec. 10. Consider commissioning a study of those students in Tamil Nadu who have come through the ABL and ALM approaches, to learn of their experiences in secondary education.

6. Teacher Management and Development

Achievements and Good Practices

- 5.1. The total strength of teachers in government secondary schools is 476,270 (76.6% of the sanctioned posts). Till date, 67,451 teachers have been recruited under RMSA (62.89% of the approved teacher posts). With respect to the approvals for the year 2012-13, no teachers have been recruited under RMSA; 4722 teacher posts were approved in 2013-14 and 1632 approved in 2014-15. In 19 states more than 75% of the teachers are professionally qualified and in 11 states, between 50 and 75% of the teachers are qualified. A total of 34.5% of teachers have been covered under in-service training. In 2014-15, 18.8% of the teachers were covered under in-service training till October 2014. (Source: MHRD Briefing Presentation of 27th January, 2015)
- 5.2. Across the world, research points to teacher expectations of their students as a critical determinant of student performance. It was very striking in field visits that teacher explanation for student under performance was commonly attributed to lack of motivation/ability of students and/or parents. At no point did any teacher make any connection between how they are teaching and how much students are learning. The idea of tailoring teaching strategies to individual student needs seems wholly absent. What is commonly seen in the majority of classrooms visited is a chalk, talk and copy the text book methodology. This encourages a 'sink or swim' approach, where rather than using diagnostic tools such as 'open questions' or simple formative assessments to identify learning issues – teachers practice 'triage' focusing on the brightest – those who have the best chance of passing the exam. This represents a massive waste of India's talent. Despite best efforts with CCE etc. there is an ongoing need to ensure diagnostic feedback and remedial action is practiced in the classroom. This is a challenge to which teacher education must respond. Making decisions about instruction is as core a component to teaching as providing the instruction itself. The students with the greatest needs require the most accurate and effective decisions. Recent emphasis on teacher accountability requires that they use assessment data to plan, judge, and modify instruction. Assessment is a core component of learning but there is little evidence to show that teachers design and implement methods of assessment that are congruent with the new approaches to teaching and learning. In-service training has to focus on re-conceptualization of CCE to have critical understanding and develop knowledge and skills that teachers need to make sound decisions about using assessment information to improve instruction. Teachers should be provided with templates of good assessment practices and guided through the process.
- 5.3. The in-service training component has been revised to an integrated training of 10 days for teachers – 5 days for subject training and 5 days for ICT, IE or any training module/for Gender Sensitization/Guidance and Counseling/ Adolescent Education, etc. In-service training being conducted by the states is perceived to have no long-term improvement in the quality of teaching. Teachers have little say about the content of the programs. The content and practices are often fragmented, lacking in intensity and with no follow-up. There are limited opportunities for collaborative and cooperative learning among teachers. Even if teachers learn some ideas related to new pedagogies, the teachers' practice in classrooms has not changed in any significant manner. Besides, some states target their training at schools to improve Board examination pass percentage, thus undermining the significance of coordinated program of continuing professional development of teachers. The mechanisms of quality control in the form of training evaluation, student assessment and follow-up of trained teachers is weak or absent. In order to make the best use of this

integrated training, there should be a systematic identification of training needs and teachers to be covered, and the training content to be delivered should be designed based on this.

- 5.4. Professional Development of secondary teachers needs to be domain-sensitive focusing on knowledge of subject matter and the knowledge for teaching it, including appropriate pedagogical skills, if improvement in classroom practices and student learning is to be achieved. For realizing this, programs need to emphasize on (i) integration of content, pedagogy and technology to develop teachers' craft/integrated knowledge, (ii) providing more opportunities to observe, practice and reflect on proven teaching strategies, and (iii) increasing the amount and quality of mentoring.
- 5.5. The KRPs and master trainers have a critical role in providing continuing professional development of teachers. Given that the teaching approaches associated with student-centred learning is new to majority of the teachers, there is a need to develop the expertise of master trainers, who may not all have the adequate knowledge and skills.
- 5.6. The quantum of training that is required, and the need to provide training and support through the year, means that advanced planning is needed. At present, states appear to be planning training only once funds are received. This often results in training taking place in a narrow window of opportunity some way into the school year.

Recommendations:

- Rec. 11. States should plan teacher training activities ahead of time so that they can be carried out in the first quarter of the FY; funding from RMSA for training should be able to be carried forward so that it is available in the first quarter of the year.
 - Rec. 12. Improving the process of the selection, preparation, performance and retention of the KRPs and master trainers needs to be given high priority. The CTEs and IASEs should be involved to support their professional development. A close engagement between teacher education institutions and in-service training providers will ensure effective delivery for quality professional development.
 - Rec. 13. States should have systems for quality assurance and the supervisory personnel and school principals should also be trained on the new approaches to teaching, learning and assessment.
 - Rec. 14. Training should be needs based; this needs assessment needs to look at a range of data including disaggregated performance on examinations and learning assessments but also observations of classroom practice and curriculum revision.
 - Rec. 15. Distance learning and technology should be utilized to supplement the in-service training for subject teachers.
 - Rec. 16. States should be encouraged to use the NROER to develop and make available their state appropriate open educational resources for teachers, teacher educators and key resource persons.
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- 5.7. The JRM had an opportunity to review some of the analytical work of the RMSA- TCA in teacher management and development. The MHRD may consider prioritizing the recommendations below for implementation that have emerged from the findings of their analysis.
 - 5.8. States often experience shortages of teachers in core subjects. The shortage of teachers may be general (for all types of schools and all types of teachers), or focused on certain subjects (mathematics, sciences, languages, etc.); or locations (rural areas, tribal areas). An analysis

of the distribution of specialist subject teachers across schools can bring greater policy and practice convergence. Aligning this analysis with data on the numbers of students in each class across the state will enable planning to be based on real and projected numbers. For this, states should consider using the disaggregated state level data from UDISE for planning. The TCA review report on Teacher Management and Development in Assam has analyzed the UDISE data of the state and reveals that 72 schools in Assam have zero student enrolment and 78 schools across 8 districts have no teachers at all.

- 5.9. Integration and streamlining of data systems in an HRMIS can improve the evidence base for decision making. In the states visited, Tamil Nadu has developed an EMIS with student and teacher profiles. Improving information on teacher distribution through HRMIS is a critical first step to addressing teacher distribution. Findings from the review of the HRMIS in Karnataka and MP by the TCA.
- Rec. 17. States should consider conducting a comprehensive review of their teacher management and development policies, systems and practices.³ State level reviews are required to analyse strengths and weaknesses in teacher recruitment, deployment, transfer and professional development. This will form the basis for system strengthening and development of a coherent policy framework in the states.
- Rec. 18. Teacher Deployment: At the secondary level, it is important to prepare teacher vacancies based on disaggregation by subject requirements in each district, instead of using just the PTR norm. In addition, correlating data on teacher qualifications in specialist subjects, if available, with learning achievement data (NAS) at state level will provide a useful basis for reform strategies.
- Rec. 19. A review of the Tamil Nadu EMIS and other states that have undertaken work in this area will be useful to develop guidelines to set up robust HRMIS systems in states.

³ NUEPA, in collaboration with the World Bank, has conducted such a review in 9 states, which will be published shortly. This could provide a valuable resource for consultation with states.

7. Vocational Education

The Scheme of Vocationalisation

- 6.1. Vocational options for students can be provided in two broad ways, either by offering separate vocational courses or by offering the opportunity to learn vocational skills throughout the curriculum (i.e., in mathematics, science etc.).
- 6.2. The strategy for the Vocational Education component within the RMSA Programme takes the first of these options. The JRM has therefore considered whether and if so how the implementation of vocational education courses as presently conceived could be done more effectively and the implications of the choice the Programme has made to offer vocational education courses rather than vocational skills across the curriculum.⁴
- 6.3. It can be noted that it is important that the overall rationale and justification for embarking on this programme are carefully articulated. Only in this way will states understand the objectives and expected outcomes from the vocational education component. This articulation will also help in understanding the connections, complementarities and differences with various other existing schemes or programmes which prepare students for the world of work as an alternate to higher studies (such as those offered in existing structures of ITI or Polytechnics).
- 6.4. Beyond the high level rationale, this JRM has tried to offer some reflections on some pressing practical matters. Overall success of any VE programme is dependent on the quality of the offer. VE is known to be both expensive and technically challenging – there are many critical questions on practicalities: budget, staffing, certification, vertical and horizontal mobility within the education system etc. These need to be fleshed out between the centre and participating State governments. Moreover, the learnings from past VE initiatives particularly their failings need to be taken into account so they are not repeated.
- 6.5. The present scheme echoes the ideology inherent in the National Skills Qualification Framework (launched in December 2014) and seeks to integrate general academic education, vocational education, vocational training and higher education as a comprehensive system. The comprehensiveness is articulated in the form of international equivalency, provision for multiple entry and exit between VE, general education and job markets, transfer between VE and general education; and partnership with industry/employers. While this is all commendable the extent to which intent is likely to become reflected in reality given the present context – particularly on qualification equivalency – needs to be very carefully scrutinized.
- 6.6. The specific objectives of the scheme are to enhance the employability of youth through demand driven competency based, modular vocational courses; to maintain their competitiveness through provisions of multi-entry multi-exit learning opportunities and vertical mobility/ interchangeability in qualifications; to fill the gap between educated and employable; and to reduce the dropout rate at the secondary level and decrease the pressure on academic higher education.
- 6.7. Studies have attributed the absence of success in earlier experiments in VE to the inability of the system to provide adequately trained regular teachers, adequately equipped work spaces, appropriate courses with built in flexibility, linkages with the industry, and vertical

⁴ It might also be noted that offering vocational skills across the curriculum is typically called ‘vocationalization’ of the curriculum, while offering vocational education courses is typically called ‘vocational education’. Under RMSA, the term ‘vocationalization’ is used to refer to the provision of vocational education courses (the title of the programme is Vocationalisation of Secondary and Senior Secondary Education).

mobility within and outside the specific trades and its nurturance within the community of stakeholders.

- 6.8. The understanding of the scheme provisions in the light of the framework and the specific objectives and the evolution of plans in conformity requires much effort in design and development of every element, involvement of the larger community and academia, and establishment of linkages among the authorities and institutions involved.

RMSA provisions and scope

- 6.9. The scheme provides for the creative involvement of the State and its institutions in articulating need based VE options. Flexibility is built in and one size fits all implementations are explicitly discouraged. The case of implementation of the scheme in Haryana is also presented along with the lessons learnt. Enhanced awareness about VE in the community / stakeholders forms an essential precursor to increasing the demand for the courses as well as its effective roll out.
- 6.10. Capacity to identify and map the existing and future skill needs of the local community (market / industry) has to be built. The scheme encourages communities and schools to offer diverse skills representing local aspirations and needs. Mandating this provision is essential to enhance ownership of the scheme at the school and community levels.
- 6.11. Inconsistencies arising out of parallel educational paths will have to be resolved. A student in the regular 10+2 system with a VE elective gets a lateral entry into the second year of a Diploma programme in VE, spending two more years for the Diploma (effectively 14 years), while a student after 10 years in the regular system can join the first year of Diploma completing it in three more years (effectively 13 years).
- 6.12. The number of available courses to date is few and therefore the choices for the States limited; but this is expected to grow over time. Also the course content appears to have been articulated from level 5 to level 1. The spirit of vocationalisation would require greater accommodation and realisation of the National Curriculum's objectives. Students can take a maximum of 7 subjects in secondary education. The NCF prescribes certain subjects as mandatory and some states have mandated additional subjects; the introduction of VE subjects will therefore need to be considered carefully by states as they determine the policies and regulations about which courses for students are compulsory and what are the choices students have for the optional subjects.
- 6.13. In exploring issues of VE it is important to remember that vocational education courses is not the only place where workplace skills are imparted; as noted above vocational skills can be taught across the curriculum. This opportunity can be offered to all students for several reasons. First, all students need to learn work-related skills. These work-related skills are of many types, such as team work, IT skills, responsibility, communication skills, etc. But equally repeated employer surveys in India consistently point to the need for secondary (and higher education) graduates who are numerate, literate, can apply their knowledge to new situations, etc. There is therefore considerable scope to improve the general education offer in these critically important foundation skills. Moreover the opportunity for cross curricula linkages need to be explored. A good example being in IT which is found in both vocational and general curricula. Second, many secondary education students will not want to take vocational courses, because their interests and aptitudes lie elsewhere. Third, for the short and probably medium term, vocational courses will not be available to most students because of the limited number of approved schools and classes. Finally, it should be remembered that students who take vocational courses at the secondary level can only take one such course – the large majority of their time in secondary education is spent on non-vocational subjects. They therefore should not be considered ‘vocational students’ with the implication that they will continue taking vocational courses in their future students and

choose to focus on these types of courses (any more than a student taking mathematics is labelled a mathematician).

- 6.14. Moreover, there is an accepted need for knowledge that students learn to be applied in real life settings. Teaching in schools should include this application of knowledge. This should happen in all subjects and not just in vocational courses.
- 6.15. A consultation has been launched to provide resources to aided and unaided schools which wish to offer vocational courses. The proposal includes a strong performance-based funding mechanism which would pay schools only when a student is successful. The JRM views this as a welcome development – both to encourage states to see aided and unaided schools as able to help them achieve their policy objectives and to introduce performance-based funding and an outcome orientation under RMSA (which might be applied more generally within the Programme).

Roll out of VE in the States and the JRM

- 6.16. The scheme provides for mobility, linkages with a range of institutions and industry / market interface. The evolution of appropriate regulations to facilitate the smooth realisation of these provisions would require engagement with the institutions immediately.
- 6.17. The present year is the first year of implementation in almost all states. Hence some of the early signals can help immediate corrections. The State reports provide many possible suggestions spanning the entire programme. To date, States tend to implement VE because this is available. They will need to give further thought to the details of the scheme, needs of the students, preparations required, and the creation of an environment primed to make the scheme succeed are not adequately addressed. In particular, the involvement of stakeholders particularly at the school level – teachers, parents, students, businesses – needs to be visible and meaningful.

Implementations in the States visited

- 6.18. Assam has an established vocational education scheme operating in its secondary schools, with electives like computer technique and commercial art. In addition, the state offers other electives like advanced mathematics, classical languages, etc. But the state reports the decreasing popularity of the vocational subjects vis-a-vis other subjects in the bouquet among the students. In the roll out under the VE scheme of RMSA, the state covers 59 schools with IT/ITeS and Retail as the only two options. The schools have established work spaces and placed teachers, and begun enrolment, but equipment and curricular resources are yet to be supplied. The two schemes coexist and have reportedly caused confusions.
- 6.19. Gujarat presently offers a vocational stream in 34 schools at class 11 and 12 in agriculture, commerce, home science and technology related trades. It is in the early stages of preparation for a pilot in secondary schools. This pilot will take place from the next session in 100 selected schools from 11 districts. 1 year courses would be offered as an addition to the optional 6th subject and is likely to include health care, retail, automobile, multi skill (carpentry, masonry, electrician, plumbing), and by year two of the pilot IT, beauty and wellness, travel and tourism will be added. There are concerns over who will certificate this award.
- 6.20. Haryana has offered two vocational subjects to each school out of a basket of 7, which includes IT/ITeS, security, automobile, physical education and sports, patient care assistant, beauty and wellness and retail. All schools visited are found to have the requisite

equipment, well qualified teachers with relevant earlier work experience, and highly committed to their work. The government plans to expand the vocational education offerings.

- 6.21. Tamil Nadu has implemented levels 3 and 4 since 2009 and plans the roll out of levels 1 and 2. The state is in the process of conducting a baseline study to gain a more systematic understanding of the existing opportunities in the districts.
- 6.22. Uttarakhand is still in the process of roll out of VE. The state plans to introduce the programme in 44 secondary schools from 2015-16 onwards in 4 sectors namely Automobile, IT/ITeS, Retail & Patient Care. It has sought technical support from an external agency – Wadhvani Foundation. Curriculum and syllabus development is supported by Uttarakhand – Shiksha Parishad, a special cell set up at Ramnagar for NSDF.

Achievements and Good Practices

- 6.23. Haryana is the only candidate for assessing a roll out, though the formal pilot consisted of one year's activities in only 40 schools. The State has been able to generate interest amongst stakeholders and teachers. It has been able to set up classrooms, establish the infrastructure, recruit and position teachers and complete two cycles of courses, having had a head start through NVEQF. Outside agencies have been employed for recruitment and monitoring of the performance of the teachers and this seems to have worked successfully.
- 6.24. Haryana has also set up a school in Faridabad with all 7 vocational subjects, which is to be developed into a resource centre, which would also support research in the field.

Concerns

- 6.25. The states visited have shown limited understanding of the scheme, its provisions and steps required to be taken for roll out. Their capacity to make informed choices and roll out need based courses is limited.
- 6.26. The linkages with the industry and higher education institutions are yet to be established. The states are yet to articulate all the details of credits, equivalence, possible options, and institutions which would offer the desired courses. In states where the +2 course is organised by a different agency, a linkage will have to be immediately worked out. If not taken up in right earnest, the first batches of students are likely not to get the benefits of upper mobility as envisaged in the scheme.
- 6.27. The work spaces created in Haryana schools are shared spaces within regular classrooms. The need for exclusive spaces, with possibilities for expanding the activities is desirable. These spaces are, of course, being created afresh and imply that spaces for other subjects are not being created (nor are materials and teachers being provided for these other subjects).
- 6.28. Very little evidence was found of students learning by doing.
- 6.29. Schools, communities and industry stakeholders are rarely a part of the implementation. This has inhibited enrolment, development of local industry / market linkages, and a sense of ownership of the programme.
- 6.30. Diversity of courses and its utility to the community / job seeker are not part of the articulation. There appears to be a tendency to choose from among the options available, regardless of the utility / feasibility. The supply driven implementation will not help the popularity of the course.

- 6.31. Haryana has reported that placement is not among its responsibility and that NSDC / SSC would take care of it. This is perhaps a misplaced view and non-sustainable.

Recommendations:

For GOI

- Rec. 21. Prior to any decision on the future of VE in secondary education an evidence-driven debate be undertaken that recognises the financial, social and academic ‘trade off’s’ that introducing optional vocational education in grades 9 and 10 for all schools would entail. GOI should treat its current support of vocational education as a large scale pilot. A rigorous third party review covering analysis of impact, cost effectiveness and implementation challenges may be conducted to inform any future decision making before more schools are included. This review might include a number of issues including:
- Per student cost – what is the cost of VE per student as against general education?
 - Beneficiaries – how many students are expected will receive VE, in what locations? What benefits have they gained in terms of being able more successfully to achieve their aspirations (either for work or further study)?
 - Funding projections for universalising VE with RMSA – particularly given current documentation indicates aided and private schools will be eligible for VE support.
 - To what extent may VE targeted to local labour market opportunities exacerbate the existing rural urban divide / impede social mobility?
 - To what extent would adding VE as an additional optional subject – impact on the uptake of other core subjects e.g. social studies, advanced maths?
 - How to ensure VE does not entrench gender norms and career expectations
 - Is it a viable alternative to introduce vocational and practical elements (at skills level I and II in the current framework) within existing subjects and leave more focused and higher level skills training to higher secondary (as most other countries do)?
- Rec. 22. Key aspects of the operationalization of the current pilot be reviewed and where necessary clarified with additional guidance
- Staffing costs – what additional staff costs will introducing VE entail and what will these equate to as per student unit costs given that this will be an optional subject and not available in all schools
 - Resourcing – what physical resourcing requirements are necessary for effective delivery of the different VE courses – what strategies will ensure maximum utilisation of workshops etc.
 - Assessing and certifying bodies – Clarification of who will be the assessing and certifying bodies (nb it cannot be assumed that state exam boards will be ready to certificate optional VE subjects – and if they are prepared to do so at what cost?)
 - To what extent will VE qualification enable vertical and horizontal mobility within the education system?
 - It is known that VE works best when it responds to local labour market demands. This requires labour market analysis (guidance on who should do this and how it should be done) which need to be regularly updated (what is the recommended duration?)

- When labour market needs change how will VE respond ? (e.g. if a workshop has been set up to train welders and the market no longer needs welders but mobile phone technicians – how will the changes in workshop and staffing needs be managed ?)

- Rec. 23. A mechanism to encourage, support, catalyse innovations / newer choices for VE trades in states and even in individual schools so as to make the programme community owned, community driven and help realise the community's own needs and aspirations.
- Rec. 24. Support and guidance to states on how to broker good relationships with the private sector – e.g. engaging with FICCI or local chamber of commerce branches – could be considered.

For States:

- Rec. 25. The state would do well to think ahead and plan for linkages with industry and local markets to enable attachment / on the job training opportunities; the range of courses / trades suitable and feasible in its geographies; establish linkages with other institutions / authorities to enable affiliation, availability of courses at the next levels, accreditation, mobility to and between courses, equivalence, etc.
- Rec. 26. The scheme suggests that schools offering vocational courses may also serve as Accredited Vocational Education and Training Centers of National Institute of Open Schooling (NIOS). States can use this opportunity to map out of school children and provide VE options to these children, perhaps outside the regular school schedules. The availability of qualified resource teachers and the infrastructure would be better utilised.
- Rec. 27. Placement of the children dropping out of the system at different levels (1-4) would go a long way in establishing the principles envisaged and the credibility of the scheme. A suitable mechanism to promote placement and simultaneously track the students would go a long way in establishing the programme as a desirable option.
- Rec. 28. The remoteness of the schools and weaknesses in capacity will lead to uneven implementations. The establishment of a sound monitoring and resource support mechanism will help evaluate the implementation and make suitable corrections.
- Rec. 29. States may encourage stakeholder participation and need assessment at the local levels to make informed choices of VE courses. States may also establish a flexible system, which allows the addition of new options and the discontinuance of existing ones.
- Rec. 30. Centrally designed course curricula may need local adaptations. States may create local capacities and validation mechanisms to make the courses more relevant to their needs. The involvement of local industry / market in the process is also desirable.
- Rec. 31. The achievement of the students in the course, particularly their skills would require special assessment techniques, beyond normal examination routines. States will have to identify personnel and mechanisms for the purpose. Involvement of qualified professionals in the process would also be desirable.

8. Unified District Information System for Education (UDISE)

- 7.1. UDISE, an integrated data management system developed by National University for Educational Planning and Administration (NUEPA) caters to around 1.5 million schools covering both elementary and secondary schools across 36 States and UT. While DISE has been an established management information system for SSA, its extension to RMSA required appropriate changes in the field in terms of providing for adequate physical, financial and human resource as well as establishing coordination with the SSA MIS teams.
- 7.2. From 2014-15, it has been made mandatory for States to submit their Annual Workplan and Budget (AWP&B) based on UDISE. AWP&B not meeting this requirement are returned and advised to resubmit for Project Appraisal Board (PAB) approval. It was informed that UDISE will become the official data from 2015-16. Such a step will address the issues of data consistency and reliability which so far has been the biggest challenge in using data. Along with that it will promote a change in orientation towards probing data for analysis and problem solving.

Management Arrangement

- 7.3. The first unit of data collection and filling up of Data Capture Format (DCF) is school. In most cases, from school it goes directly to the district level as separate staff for RMSA do not exist at block level to carry out data check and validation unlike the BRC/CRC coordinators available for SSA. From district, it goes to the State level, where the last point check and verification by MIS staff of RMSA programme management unit conducted before it is sent to NUEPA. As required, a 5% sample check is made through an external agency.
- 7.4. In Gujarat and Uttarakhand, the use of SSA structure and staff in close coordination with RMSA for data collection and processing is working well and an example of good practice. On the contrary, sharing of resources between the two programmes was highlighted as a challenge in Assam where the hardware and manpower for data entry is not available under RMSA, and with no incentives for SSA staff and their lack of understanding of complexities of secondary school data ends up causing data errors, transmission loss and time delays in finalization.

Staff Training and Capacity

- 7.5. The biggest challenge in implementation of UDISE is the lack of understanding of DCF at school level, that being the first point of data entry. Training on UDISE for state level staff is carried out by NUEPA, thereafter this is cascaded through the chain with state level training district level and district staff training school headmaster/principals. The orientation and training imparted at the school level needs to be reviewed as a priority with support through a handbook and clear definitions of fields for aiding consistent understanding/interpretation of the field and achieving better data quality and reliability.
- 7.6. With the technical cooperation agency support (TCA) funded by DFID to RMSA programme, guidelines for filling up DCF and FAQs for UDISE have been developed and are available on DISE website since August 2014. Many states have translated in regional languages and used it for training for UDISE 2014-15, however it was not apparent from the states visited in this JRM if they were aware of this resource. In addition, there are more resources developed with TCA support such as a promotional media campaign to increase awareness, coverage and quality of UDISE (it can be found at

<http://www.youtube.com/watch?v=aouwAh51MdM&hd=1>) and a technical note on Educator indicators. In view of resources already existing to support understanding of UDISE, a more concerted effort is needed for wider dissemination including face to face forums. Feedback from states could be sought to further refine the support guidance material. Forums could usefully cover the following issues:

- Trend Analysis on the basis of single year and time series data
- Use of Educational Indicators for Education Officers and DIET faculty for planning, monitoring and decision making
- Statistical Analysis of UDISE
- Education Development Index at District/Block
- Use of UDISE in combination with other sources such as Census/NFHS/DLHS/HHS
- Understanding of school efficiency
- The use of GIS and integration of UDISE data into GIS maps.

Coverage of UDISE and Process Issues

- 7.7. While UDISE extends to all schools including government, government aided and private schools, data collection is often delayed on account of late submission from private schools. When they are submitted, it normally takes three to six months for data to appear on UDISE. With the result, state often tend to use other sources to collect the more updated information ending up with variable data and inputting of data multiple times. The other area of challenge is the availability of final corrected version of UDISE during preparation of state plans. UDISE data are still undergoing corrections by the time the State planning cycle starts. The submissions of UDISE to NUEPA goes beyond December, which is the stipulated deadline and as a result causes delays in PAB appraisal and approval cycle.
- 7.8. A formal forum such as PAB facilitates in resolving some of the common issues of data discrepancy identified during the appraisal meetings. For instance, the issues identified in the 2014-15 included technical problem with one of the fields which resulted in no proposal for new schools, discrepancy between UDISE data of 2012-13 and 2013-14, different coding /categorisation (lowest class/ highest class) being followed in different states resulting in various interpretations of the number of schools, which have been referred to NUEPA for resolution.
- 7.9. Not all States have started using supplementary parameters provision that is at their discretion. This is to enable States to capture variables that are State specific. While they are aware of this, there appears to be some hesitation in using it. The understanding of this provision took a long time in the SSA, so learning from their experience, special attention may be given under RMSA to promote its usage.

Utilization of UDISE data

- 7.10. Schools fill up DCF in compliance of instructions than seeing any benefit accruing due to such an exercise. Using UDISE information to compare progress over last academic year or examining enrolment, transition, retention and other such areas as part of data analysis is completely lacking right from school to state level. This is the general overall position and is evident from the school development plans and the (AWP&B) which though are being prepared on the basis of UDISE, the quality and robustness remains areas of concern.
- 7.11. Tamil Nadu provided a leading example in use of UDISE data to report progress against targets of the key performance indicators and the intermediate results set under the State

results framework. The states also using the RFD to monitor progress of RMSA implementation against targets set out in the key performance indicators and intermediate results. They have also used UDISE data in the GIS school mapping exercise.

- 7.12. If the potential of using UDISE to make inferences on trends, patterns and comparisons can be demonstrated to users, the appreciation and uptake of its use will certainly increase. One such initiative is the RMSA TCA collaboration with Assam Secondary Education Department on analyzing UDISE statistics which has resulted in a comprehensive tracing of district wise figures of a variety of parameters. The next step would be to involve different state and district level functionaries in this activity that will result in greater awareness of the utility of such activities. And also enriching the analysis by making deeper enquiries on disaggregated basis that would help the authorities in developing a more robust approach to address the issues.
- 7.13. In most states, GIS mapping of habitations has been completed. Some states such as Tamil Nadu have used UDISE along with GIS in identification of schools in yet unserved habitations and upgradation of existing schools based on eligible student population. Integration of UDISE data onto the GIS platform presents a huge potential for generating maps of key data in resourcing and school performance that can be investigated and remedied.

Recommendations:

For GOI:

- Rec. 32. MHRD should facilitate states to use the provision for supplementary fields, and this should be part of the work NUEPA does in capacity building for planning
- Rec. 33. State-level report cards, based on the Results Framework prepared by NUEPA at the national level, should be used to monitor the progress of RMSA implementation and be a key input into the AWPB and PAB processes.
- Rec. 34. MHRD should move forward in establishing a national agency for education statistics. In the meantime, NUEPA should work with a small number of states to expand the use of UDISE by include other datasets (such as HRMIS and student data) so as to understand the issues if all states were to adopt the UDISE architecture for all their educational datasets.
- Rec. 35. NUEPA should publish analyses of the UDISE data on particular themes each year as part of its publication of tables on education data drawn from the UDISE system. As necessary, NUEPA can commission these thematic analyses.
- Rec. 36. NUEPA may carry out a review of the year-on-year comparability of the data, including both use of data from UDISE and future data collection cycles, and publish its findings. This had been recommended in second JRM as well.
- Rec. 37. NUEPA should review the findings of the external agencies which have conducted the 5 percent sample checks in different states to determine if there are systemic issues which need addressing
- Rec. 38. Workshops for capacity building should be organized around key issues (see para. 7.6).

For States:

- Rec. 39. State must invest on building capacities across the system - beginning at the school level, to realise the importance of data for decision making.
- Rec. 40. The generation of school level, block and district level compilations and report cards is recommended, so as to increase the use of data for programme implementation. The formation of community resource groups, consisting of groups of head teachers, educators and other professionals, will also help in this regard.
- Rec. 41. Universal participation of schools in data contribution should be ensured. Legal and regulatory mechanisms should be invoked to include all schools, gaps systematically identified and appropriate enablers put in place.
- Rec. 42. The differences between UDISE expected fields, its understanding by school functionaries and the different typology the state uses in some cases has resulted in erroneous or vague reporting. An expert comparison of the data capture template, an articulation of an operations manual and orienting school and other functionaries to enhance data check and quality of reporting.

9. Programme Management

◆ Activities

8.1. Activity-wise spread of expenditure for the half year ended September 2014 was as follows:

Sr. No.	Expenditure by Activity	Rs. In lakhs
		COUNTRY TOTAL
1	2	Half Year Ended Sept 2014
1	Opening of new schools	26955.37
2	Strengthening of existing schools	26026.39
3	Major repair	4.61
4	Teacher quarters	185.33
5	Other non-recurring	81.69
6	Staff for new schools	25806.92
7	Additional staff for existing schools	12826.07
9	Annual school grant	6852.80
10	Minor repair	2589.00
11	Teacher / Staff training	908.25
12	Quality interventions	417.98
13	Equity interventions	290.74
14	Interventions for out of school children	0.00
15	Guidance and counselling	5.42
16	Training of community leaders	28.66
17	Innovative Activities	0.00
18	MMER	3431.24
19	State Components	0.00
Total		106410.47

(Source: MHRD documents provided to JRM)

Notes: 1. Does not include spending on IEDSS, ICT, Vocational education, girls' hostel; 2. Includes central and state expenditure

8.2. State –wise spread of expenditure (Annexure) up to September 2014 shows that expenditure against Teacher Staff Training, Quality Interventions and Equity Interventions has been very low. Out of 36 states, only six states have utilized funds for Teacher Staff Training and four states for Equity Interventions. The position is not very different for FY 13-14 (whole year expenditure). It is a matter of concern that innovative activities did not qualify for any expenditure, when RMSA does need innovative initiatives from the states and the JRM members saw encouraging innovative activities undertaken by the states visited by the mission members. However, the Mission is unable to comment on utilization vis-à-vis allocation against each of these activities as the data for activity-wise allocation for each state was not available.

Good practices in the states visited

Tamil Nadu

- 8.3. The education leadership in the state (including education minister and Principal Secretary) conduct regular zonal reviews (covering 3-4 blocks) in one of the blocks including school visits and monitor progress strictly. Regional review of academic performance is done and regional level meetings are held for low performing school heads. An innovative motivation programme called Vetri Ungal Kayil has been undertaken for orientation of school heads and District Education Officers to drive academic performance.
- 8.4. The State has launched Education Management Information System (EMIS) that includes school profile and student profile, teacher profile, academic books and interactive videos, Smart Card project and SMS based teachers' attendance.
- 8.5. Two monitoring institutions are monitoring implementation of the programme.

Assam

- 8.6. The Quality Assurance Groups at district level provide expert resource support. One of these groups has conducted an exhaustive study of about 166 schools using an instrument called "Drishti".
- 8.7. An enterprising team at SIS is emerging, which diligently complies with scheme provisions, and readies all requirements (data, proposals, supporting documents).
- 8.8. One monitoring institution is monitoring implementation of the programme.

Gujarat

- 8.9. The state has recently decided to merge the elementary and sectors in the school education department, which is likely to facilitate greater synergy

Haryana

- 8.10. The state is thinking creatively about how to maximise the impact of RMSA funds, and for the AWBP process, submitted several "innovation proposals".
- 8.11. In vocational education, Haryana is a pioneering state and the enthusiastic participation was palpable at the school level.
- 8.12. The state has established a common implementing society for RMSA and SSA.

Concerns:

- 8.13. Poor staffing seems to be a running concern with the states for running the programmes effectively and efficiently. This concern needs to be addressed through a systematic manpower auditing by HRD experts.

◆ Procurement

- 8.14. All States are required to follow the RMSA Manual on Financial Management and Procurement issued by MHRD on 24th January 2012 for their procurement of works, goods and consultancy activities. This is applicable for all procurement done on and after 1st April 2012. As pointed out in last JRM, the officials in most of the states are aware of the FM & P Manual, but they are still lacking in using/ applying the terms and conditions of the manual in procurement activity.

Achievements and Good Practices in the states visited

- 8.15. In the five states JRM visited, mission noted that civil works are entrusted to either PWD or state corporations for execution of the same. For example, in the state of Tamil Nadu, the state Government has entrusted strengthening of existing schools, construction of Girl's hostel to the State PWD and construction of model schools to Tamil Nadu Police housing Board.

Tamil Nadu

- 8.16. Govt. of Tamil Nadu has translated the Financial Management & Procurement (FM&P) Manual in Tamil and uploaded in their website for better understanding among staff.
- 8.17. The State PWD and Tamil Nadu Police Housing Board (TNPBH) have awarded the major construction works through e-tendering process. The quality of construction of schools visited appeared to be good.

Haryana

- 8.18. The state is envisaging e procurement for all procurement irrespective of size of procurement

Concerns:

- 8.19. As envisaged in the FM&P Manual, the first step in the procurement activity is preparation of a realistic procurement plan based on AWP & B. However all states visited have not prepared any procurement plan at state level except Tamil Nadu who has prepared the plan but not uploaded the same on their web site.
- 8.20. It is noted that civil works constitute the major procurement activity in states (approximately 60 percent) with goods like school furniture as a distant second so far as volume of procurement is concerned. JRM noted that there is a need for closer monitoring and supervision of civil works by the District offices as well as SMDCs. This assumes greater significance in absence of effective internal controls observed in some states.
- 8.21. Mission noticed that civil works progress is slow in almost all states visited. For example in Tamil Nadu state, construction of new schools was entrusted to SMDC in the year 200-10 and till date only 62% of schools are completed.
- 8.22. **Funds are now released to State Government directly through treasury.** Consequently, the State Government have more responsibility and they have to work closely with MHRD,

and state societies with state education department to ensure that funds are released on time to State societies so that they are able to use the releases for efficient and effective procurement.

- 8.23. It has been observed that the concept of a systematic and scientific procurement planning for goods and services have not been adopted by the states visited. While some states have left the procurement activity to be at the discretion of external agencies, there is no organised and competent procurement unit at state level to monitor the physical and financial progress of procurement activity. In Assam, for example, procurement of materials is done on 'as is' basis by an outsourced agency without any co-relation with the timeline and objectives of the activity for which the materials are being procured. In the absence of full-scale e procurement (e tendering to entire value chain up to e contract), the transparency and monitoring of workflow is not possible. Be that as it may, even under the existing dispensation, a robust procurement planning and monitoring unit at state level may be a good support system for procurement activity and programme management.
- 8.24. If inventory management is considered as an adjunct to procurement, the situation is not very happy in the states. Proper maintenance and accounting of stores inventory especially at the school level is absent in many cases.
- 8.25. The design of RMSA envisages Post Procurement Review (PPR) by both the MHRD and the World Bank independently on sample basis. In FY 13-14, the first post procurement review was conducted by Bank in four States viz., Uttarakhand, Andhra Pradesh, Mizoram and Maharashtra and the report was shared with MHRD with a request to get it circulated to respective states for their follow up actions and comments. Regarding independent PPR by MHRD of sample contracts equivalent to 20% value of total contract per each state; in the last JRM, it was informed that MHRD may select and put in place an independent agency by December 2014, who will carry out the procurement post review. However, this contracting has been a little delayed; it is understood that MHRD is in the process of finalizing the independent agency for post review activity, which may take some more time.

♣ Financial Management

• Budgetary control

- 8.26. Government of India's actual disbursements to RMSA shows a slightly declining trend during the last three years. This would suggest a decline in the pace of implementation of the Programme.

Rs. In crore

Year	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15 (to 15 th Jan'15)
BE	1353.98	1700	2423.9	3124	3983	5000
RE	550	1500	2512.85	3172	3123	
GoI Release	549	1481.87	2500	3171	3049.73	2868.08*

*Integrated release

** Above information also includes National component and preparatory fund.

(Source: MHRD)

Concerns:

- 8.27. As against the above funds committed to RMSA, the states' utilisation of the funds has been varied. While in Haryana as on 1st January 2015 only 4.3% of cumulative releases remained unspent, Assam carries a baggage of Rs. 205 crore (approx.) of accumulated unutilised balance under plan fund (recurring and non-recurring) , including interest of Rs. 5.26 crore. In the absence any age analysis by the SIS or the auditor it is impossible to determine since when the funds have been accumulated, but, going by the interest amount, it is safe to presume that it is not a recent accumulation.
- 8.28. Similar is the position of outstanding advances lying in the hands of different agencies for considerable time with obvious risk implications. In Assam, the outstanding advances amount to Rs. 23 crore (approx.) without age analysis. State-wise figures on these two balances will clarify the status of budgetary control across the country.
- 8.29. It was observed that the Assam SIS Audit Report for RMSA Plan Fund for FY 13-14 provided by MHRD had a different set of figures as compared with the Audit Report provided by the SIS during the Mission's state visit.

• Cash Management

Concerns

- 8.30. Cash management system in the schools does not reveal a proper internal control mechanism. Cash books are the primary records of accounting and should be maintained according to the provisions of FM & P Manual. It was observed that the schools do not have available any trained accountant to maintain the main and subsidiary cash books, journals, stock records etc. At present, subject teachers or the head teacher is given this responsibility. Instead, members of the local community could be trained in bookkeeping necessary for the needs of schools.

• Internal Audit

- 8.31. Haryana has set a good paradigm for an in-house internal audit system with adequate number of professional staff to discharge this important internal control function, which is known as 'control of all controls'. The other states visited by the Mission members disclosed that either internal audit is non-functional or adding no value to the internal control system.

Concerns

- 8.32. Internal audit of the Programme is not happening in most states.

• External Audit

- 8.33. As required by the Financing Agreement between the GoI and the Donor Agencies, Annual Audit Reports of State Implementing Agencies for FY13-14 were to be submitted to the Development Partners by December 31, 2014. Out of 36 States and Union Territories,

Audit Reports of 23 States have been shared with the Mission. Out of these, auditors of 14 States have given an unmodified opinion, audit reports of 6 States are qualified, 1 report is incomplete (Gujarat) and 2 reports are of unacceptable quality and therefore may need to be revised. Some of the major spending States which have not submitted Audit Reports are Andhra Pradesh, Karnataka, Chhattisgarh, and Jammu and Kashmir. Audit Reports of States continue to flag issues such as releases to SMDCs/districts being treated as expenditures, pending UCs, inadequate grant reconciliation systems, inadequate bank reconciliation systems etc.

- 8.34. Quality of audit reports continues to be a concern.
- 8.35. It was recommended by the 4th JRM that the SIS of each State should provide clarification and/or take remedial actions against the audit observations of FY 12-13 and report back to MHRD by December 31, 2014. Despite several requests the mission could not review any responses from the State. The Development partners have expressed concern that they are not able to get an assurance regarding resolution of audit observations reported by the auditors in FY 12-13.

- **Interim Unaudited Financial Reports versus Audited Expenditure**

- 8.36. It was recommended by the last JRM that States should reconcile the differences between unaudited and audited expenditure as on March 31, 2013 by December 2014 and going forward such reconciliation statements need to be prepared and included in the Annual Financial Statements. None of the 23 audited Annual financial Statements of SIS issued for FY 13-14 include such reconciliation. An analysis shows a net difference of INR 860 crores between audited and unaudited expenditures of FY 13-14 for the 23 States which have submitted audit reports. There are large differences in Himachal Pradesh, Odisha, Bihar, Uttar Pradesh and Uttarakhand.

Recommendations:

For GOI:

- Rec. 43. MHRD may encourage the states to put a robust procurement planning system in operation and if necessary, to render professional assistance by hand holding and involving all procurement agencies like PWD, external agencies (like Amtron in Assam) etc.
- Rec. 44. MHRD may expedite the process of independent post procurement review of contracts at the earliest.
- Rec. 45. The internal control system for monitoring of advances needs to be strengthened.
- Rec. 46. RMSA has attained maturity and time has come for a mid-term financial review of the programme by domain experts from the area of government finance and accounting systems (such as the IA&AD) under the guidance of MHRD. This will help ensure mid-course correction for system improvement better utilisation of the scarce resources.
- Rec. 47. Conduct intense training of SIS, District units and SMDCs on compliance with the FM&P Manual.

- Rec. 48. Conduct internal audit to assess compliance with FM&P Manual and target training based on audit findings.
- Rec. 49. Hold a workshop with external auditors (signing partners of audit firms) before the start of audit for FY 14-15 to discuss issues pertaining to audit quality observed in prior years and to explain expectations based on the Audit Terms of Reference.
- Rec. 50. Submit reports, by end March 2015, regarding clarification/remedial actions taken to address audit observations reported in Audit Reports of SIS for FY 12-13 to the Development partners so that the stakeholders get an assurance that the audit observations are being attended to.
- Rec. 51. Reconcile unaudited expenditures reported in IUFRRs with audited expenditure and include such Reconciliation statements in the Annual Financial Statements.

For States:

- Rec. 52. States to ensure effective monitoring mechanisms at all levels. With more delegation of financial powers to SMDC, it is important that States should strengthen support at the district level with technical resource person to supervise, monitor and offer hand-holding technical support to SMDCs for civil works supervision.
- Rec. 53. At the State level a good team of financial experts should manage the finance division. The states may use the services of the officers of state finance and accounts services at various levels or explore the possibility of engaging retired officers from IA&AD or Finance Department on contractual terms.
- Rec. 54. A professionally managed internal audit system should be in place without further delay either in-house or outsourced. The internal audit reports should be examined seriously and corrective actions taken to improve the systems of financial management.

Sr. No.	Expenditure by Activity	Andaman & Nicobar	Andra Pradesh	Arunachal Pradesh	Assam	Bihar	Chandigarh	Chhattisgarh	Dadar Nagar Haveli	Daman & Diu	Delhi	Goa	Gujarat	Haryana	Himachal Pradesh	Jammu & Kashmir	Jharkhand
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Opening of new schools	0.00	0.00			2850.13	0.00		0.00	0.00			2070.39		500.00	0.00	
2	Strengthening of existing schools	0.00	11837.26			0.00	0.00		0.00	0.00			0.00		343.56	0.00	
3	Major repair	0.00	0.00			0.00	0.00		0.00	0.00			0.00		0.00	0.00	
4	Teacher quarters	0.00	0.00			0.00	0.00		0.00	0.00			0.00		0.00	0.00	
5	Other non-recurring																
6	Staff for new schools	0.00	0.00			1374.45	0.00		0.00	16.91			0.00		770.12	0.00	
7	Additional staff for existing schools	0.00	0.00			0.00	0.00		0.00	0.00			0.00		0.00	0.00	
9	Annual school grant	0.00	1390.75			0.00	42.50		0.00	11.50			156.50		547.75	0.00	
10	Minor repair	0.00	0.00			0.00	0.00		0.00	0.00			0.00		519.00	0.00	884.00
11	Teacher / Staff training	0.00	5.90			0.00	0.00		0.00	0.00			74.11		41.12	0.00	68.00
12	Quality interventions	10.49	0.00			0.00	1.80		0.60	2.40					34.12	0.00	
13	Equity interventions	0.00	0.00			0.00	0.00		0.00	0.00			59.25		1.44	0.00	
14	Interventions for out of school children																
15	Guidance and counselling	0.00	0.00			0.00	0.00		0.00	0.00			0.00		0.00	0.00	
16	Training of community leaders	0.31	0.00			0.00	0.00		1.35	0.00			0.00		0.28	0.00	
17	Innovative Activities																
18	MMER	0.48	256.26			219.67	0.34		2.51	6.94			60.98		90.00	0.00	103.16
19	State Components																
Total		11.28	13490.17	0.00	0.00	4444.25	44.64	0.00	4.46	37.75	0.00	0.00	2421.23	0.00	2847.39	0.00	1055.16

Karnataka	Kerala	Lakshdweep	Madhya Pradesh	Maharashtra	Manipur	Meghalaya	Mizoram	Nagaland	Orissa	Puducherry	Punjab	Rajasthan	Tamilnadu	Tripura	Uttar Pradesh	Uttarakhand	West Bengal	COUNTRY TOTAL
Half Year Ended Sept 2014																		
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
	0.00		5915.89	0.00	67.56	0.00	1203.93					0.00	0.00	451.21	12123.79	1772.47	0.00	26955.37
	0.00		2670.61	0.00	136.58	0.00	3.17					0.00	2651.62	255.58	4478.82	3649.19	0.00	26026.39
	0.00		0.00	0.00		0.00	4.61					0.00	0.00	0.00	0.00	0.00	0.00	4.61
	0.00		0.00	0.00	55.89	0.00	129.44					0.00	0.00	0.00	0.00	0.00	0.00	185.33
					81.69													81.69
4366.14	635.72		0.00	0.00		23.47	853.90				1134.47	0.00	8292.55	396.24	5429.88	2397.60	0.00	25806.92
	0.00		5626.31	0.00		0.00	156.85					0.00	6434.46	0.00	0.00	608.45	0.00	12826.07
	0.00		3594.50	720.00		21.50	0.00			64.50	10.00	0.00	0.00	293.30	0.00	0.00	0.00	6852.80
	0.00		1179.50	0.00		6.50	0.00					0.00	0.00	0.00	0.00	0.00	0.00	2589.00
	225.69		20.90	220.89		0.00	0.00			6.24		0.00	245.40	0.00	0.00	0.00	0.00	908.25
	0.00		6.03	55.00		0.00	0.00			13.20		0.00	0.00	290.53	3.30	0.51	0.00	417.98
	0.00		8.00	218.84	115.47	0.00	0.00			3.21		0.00	0.00	0.00	0.00	0.00	0.00	290.74
																		0.00
	0.00		0.00	0.00		0.00	5.42					0.00	0.00	0.00	0.00	0.00	0.00	5.42
	0.00		0.00	26.72		0.00	0.00					0.00	0.00	0.00	0.00	0.00	0.00	28.66
																		0.00
303.17	49.06		405.00	39.00		4.02	94.64		124.14	3.56	104.64	0.00	690.66	68.59	489.82	240.68	73.92	3431.24
																		0.00
4669.31	910.47	0.00	19426.74	1280.45	457.19	55.49	2451.96	0.00	124.14	90.71	1249.11	0.00	18314.69	1755.45	22525.61	8668.90	73.92	106410.47

10. Organisation of the Joint Review Missions

- 9.1. The Joint Review Mission teams were grateful for the huge efforts of MHRD, state governments, RMSA Societies and the TSG to organise the visits to the five states and the briefing session on the first day of the Mission. In reflecting on these visits, the JRM recommends that certain parameters are used to organize further JRMs, especially those which involve state visits. These recommendations are intended to provide clearer guidance so that the process of organising the visits is simpler and the outcomes from the visits greater.
- 9.2. The opening session in Delhi should be of two days; departure for the states should be on Day 2. This will give sufficient time for the Mission members to get-to-know one another, develop a team-spirit, come to an understanding on allocation of subjects for intensive study and agree upon a common approach in the JRM and in the field visits. This will no doubt involve additional expenditure. But, the benefits of enhancement of the quality of work will far outweigh the extra costs.
- 9.3. In addition, regarding the field visits:
- The schedule of field visit should be formulated, if possible, in consultation with the team concerned. The proposed states schedule, including schools to be visited, should be intimated a week before the start of the JRM.
 - The schedule should not involve long, time consuming tiring road journeys!
 - Travel should not involve early morning (before 8am) departures. Travel to outstations should accommodate late evening arrival, overnight halt so that work next day can start early and in a well-rested condition.
 - The schedule should incorporate not only visits to institutions but also interactive sessions with participating groups and institutions e.g. monitoring groups, training bodies, evaluating agencies, research centres, concerned academic and administrative formations, etc.
 - The state material should reach the team members well in advance; it should be handed over at least immediately upon arrival.
 - TSG must ensure that only final versions of materials and travel plans are sent or given and not tentative drafts initially sent by the state government.
 - Copies of supporting documents should be kept available in the briefing hall so that additional material as may be required can be collected.
