

INDIA
SARVA SIKSHA ABHIYAN (SSA)
13th JOINT REVIEW MISSION
(January 19 - 24, 2011)

STATE REPORT: BIHAR

1.1. Introduction

SSA was officially initiated in Bihar in 2001-02, in partnership between the Government of India and the State government. The State was visited previously by the First, Third, Seventh, Ninth and Eleventh SSA Joint Review Missions (JRM) in 2005, 2006, 2008, 2009 and 2010. As part of the Thirteenth JRM of SSA a two member team comprising Anjali Noronha (GoI) and Colin Bangay (DFID) visited the State from 19th to 24th January 2011. The main objective of the JRM was to review progress in the implementation of the Programme with respect to SSA Goals and objectives and to discuss follow-up action, including capacity issues. The team met the following official personnel:

Sri Rajesh Bhushan , State Project Director, BSPP, Bihar, Sri Ashutosh, Director, Primary Education and MD, Text Book; Dr. Moin, HOD, Dept. of Teacher Education, SCERT; Ms. Shweta Shandilya, Education Specialist, UNICEF;

OSD, Hunar Cell, Director, MDM; Dy. Director, Primary Education; Dy. Director, Planning, Primary Education; State Co-ordinator, Mahila Samakhya; Civil Works Manager, BSPP; Administrative Officer, BSP; Chief Accounts Officer, BSPP; Programme Officer, AIE, BSPP; Programme Officer, Elementary Formal Education; Programme Officer, KGBV & NPEGEL, BSPP; Programme Officer, MIS & MRE, BSPP

Vaishali :

1. Sri C.Sridhar - DM-cum-Chairman, SSA, Vaishali
2. Sri Naseem Ahmad - DSE-cum-DPC, Vaishali

Patna :

- 1 Sri Shashi Bhushan Rai - DSE-cum-DPC, Patna

The team also met the State Minister HRD Shri P.K. Sahi and Shri Anjani Kumar Singh the Principal Secretary Education.

The mission members would like to express their appreciation to everyone who gave time, co-operation and hospitality during the visit, particularly to Shri Deepak and Shri Pankaj who accompanied the JRM team on its field visits and took care of them diligently. Their candour and willingness to provide the information requested was a vital contribution to the work of the mission.

We are grateful to the state for reorganizing our visit schedule at short notice and change from Nalanda to Patna urban district.

1.2 Overview and Key Issues

Key Achievements:

Bihar has made dramatic progress in provision of education inputs over the last five years (table 1). Review of learning outcome measures from the state, national assessment (NCERT) and ASER are encouraging with state learning achievement scores in language, mathematics, science and social science scores being above the national average. The number of out of school children and out of school girls has been dramatically reduced from over a quarter of the respective populations in 2001 to around 4% in 2010.

Positive trends are seen in the growth in participation, retention and transition rates of girls schedule castes, tribes and other minority groups in schools. (4575692 (26%) in 2001 and 784900 (3.77%) This success is due to a combination of strategies, some of which have been laudably funded by the State Government. In meetings state officials were well informed and came across as enthused with a sense of purpose.

School and land mapping done electronically is underway and will do a lot in enhancing planning of basic infrastructure.

Its work for Children with Special Needs could be said to be exemplary. The total population of CWSN is 313500 (Of these 1,35,221 are physically impaired) out of which 241995 have been enrolled in schools. 740 resource persons professionally trained for responding to different needs have been put in place at district level. These were seen to be functioning well.

Bihar is also on its way in providing inputs for quality. The state resource centre for education research and training is at the centre of this activity and has good coordination with the SSA. It has developed and published its own curricular framework, syllabus from class 1 to 8 and published revised textbooks for classes 1-4 and 6 & 7, which will be used from this session. It has also provided good Teaching Learning Materials as well as good library books for classes one and two in all its schools.

It has also begun to revive its DIETs which had become defunct for the last 12 years prior to the previous 2 years, with a new curriculum with some of the features of new pedagogy. It has also done a survey of all the private teacher education institutes in the State. But most of them are not recognized by the NCTE. But these will have to be revised in the context of the new National Curriculum Framework for Teacher Education (2010). It's BRCs are in place with good infrastructure and are being regularly utilized for residential in-service trainings particularly in the rural blocks. The CRCCs are also functional.

The State is contemplating upgrading their BRCs to BIETs (Block Institutes of Education and Training)

It has begun work on developing a Continuous and Comprehensive Evaluation (student) system and should have a reasonable system in place by the coming session.

The State has commissioned a number of studies by premier research institutes of the state like ADRI, AN Sinha Institute, Jagjivanram Institute and Chandragupta Institute of Management. Many studies have been completed and inform policy. This is a good attempt to connect with other academic institutes outside the department.

It also has partnerships with Civil Society Institutions like MV Foundation, Gyaan Shaala and Pratham.

Major Parameters	Status 2005	Status 2010
Schools (Govt. & Aided)	52112	71031
Out of school	2300000	784900
Enrolment (Govt. & Aided)	14079124	19092050
Annual Drop Out (Primary)	36.06	12.2
Teachers (Including Aided)	146448	334308
Pupil Teacher Ratio (PTR)	96	57
School Buildings	49575	61058
Classrooms	143027	262685
Student Classroom Ratio (SCR)	99	82
Common Toilets	27227	43110
Separate Girls Toilets	8292	31664
Drinking Water	49050	60633

Key Concerns

In Bihar, which is one of the most densely populated states of India, with very fertile and therefore valuable land, in rural particularly in urban areas, access to land for new schools, school expansion remains a binding constraint. The land/space/additional classroom challenge can only increase with a growing population, improving school enrolment and attendance. This combination of factors will make complying with the space norms and playground requirement detailed within the RTE particularly challenging.

As bridging of students nears its targets, there is a danger of the bridging attempts like Gyaan shaala and Talimi Markaz getting stabilized as small alternative or private schools. Policy to preempt this need to be in place well in time.

Though a large number of physically challenged children have been admitted, ramps have not been built in all schools with higher plinths.

Approximately 25,000 of its over 70,000 schools has 3 or less than 3 teachers which makes them multigrade schools. Of these at least 20,000 will remain multi-grade even under RtE norms, unless there is a possibility of consolidation of schools. At the moment there is no strategy apart from some tips to deal with such a situation. School and classroom construction is not

incorporating the needs of active classrooms at the moment. There is no proper storage space being built into classrooms.

A policy on furniture will also need to be taken. At the moment the schools are proceeding to provide benches and desks wherever they have funds. These are not the best for active learning classrooms. Furniture and seating arrangements can be learnt from other schools like gyaan shaala, Bodh, Digantar, Shishu Van Bombay etc.

The attendance of students along lines of caste and minority is not being tracked. The gap in the achievement of girls and SCs is a matter of concern.

Staffing schools with sufficient trained teachers is also a major challenge. The pupil teacher ratio has deteriorated from 53:1 in 2008 to 57:1 in 2010. This shows that the recruitment of teachers is way behind the enrolment of children. A range of initiatives to recruit teachers at State and Panchayat levels while also certify existing untrained teachers to meet RTE qualification norms are in operation.

Teacher and student attendance at around 80 and 70 % respectively remain an issue with which state and school authorities continue to grapple. The problem appears more acute in urban areas where attendance was recorded at around 40%.

The Basic Schools, though addressing class 1 to 8, have somehow been left out of the SSA ambit and therefore are facing neglect in spite of possessing a large amount of land and a holistic concept of education in the original vision. Bihar government has taken cognizance of this fact and processes to integrate these schools in the modern context are underway.

The meaninglessness of CAL is evident. Its utilization is also very low. It needs to be thoroughly reviewed. Of the 38 Districts in Bihar only 24 have DIETs. But there are also 35 Government PETCs giving a total of 61 government teacher training institutions.

While BRPs and CRCCs are in place, CRCs do not have enough time to devote to academic issues as they are inundated by a lot of data collection, nor do the BRPs and CRCCs have the time & resources for their own academic rejuvenation – they are called for workshops only to discuss their role or to be trained to impart further training.

An attendance tracking system would capture the situation such that it can be addressed meaningfully. If children with 0 attendance, less than 25% attendance, 26-50%, 51-75% above 75% are categorized every month, the reasons for their irregular attendance can be enquired into and addressed.

We look forward to ‘bridge courses’ transitioning to ‘special training’, whereby out of school and newly enrolled first generation school goers and potential school goers are provided requisite support.

Key Recommendations:

Strategies to speed up teacher provisioning and building of additional classrooms and schools while keeping up the quality is of essence.

Basic Schools (based on the Gandhian philosophy) can be revitalized and reinvigorated by providing them the same measure of support and nurturance that is provided to other regular Government run schools (including exploring scope for expansion) without taking away from the uniqueness of their identity.

With the huge number of teachers required, many of them (over two lakhs in Bihar) would be untrained. A strategy for their appropriate pre-service training in in-service dual mode needs to be developed on war footing. This will require both revision of the teacher education courses as well as the educator courses, as well provision for providing onsite support through internet and other software.

DIETs, BRCs, CRCs be strengthened and academically revived, the CRCC should be freed and equipped for academic support. We look forward to the outcomes of the efforts being undertaken currently to this end.

A cadre of teacher educators needs to be built. A task force on building a teacher education and educators' education strategy needs to be put in place. Bihar is already exploring this and needs to be encouraged and supported.

It is also suggested that the Rs. 50 lakhs per district used for CAL be used to develop educational material that will enhance the use of computers for educational outcomes.

Implications for policy:

As with urban areas, consolidation of schools is to be looked at as a viable option for delivering universal quality (large schools make facilities like sharing of playground, library, labs much more cost effective) then there needs to be some way of building in a transport subsidy. This may also require some flexibility in the distance norm of the RtE.

Teacher education needs to become the thrust in the next few years. Without this, universal quality will not be achieved. Both pre-service and in-service teacher education need to be looked at as a continuum. Bihar is trying to integrate the management of both these and wherever the funds are coming from and this is the way to go.

Progress towards the achievement of Goals

Goal 1: All Children in School

Achievements

Bihar has made dramatic progress in bringing children to school. Since 2002 the number of children enrolled has almost doubled from 10.4 million to a little over 19 million by 2009-10 (DISE). The state reports 280,000 out of school children (OOSC) have been enrolled/covered by outreach programmes in 2010/11.

The government is making particular efforts to bring the estimated 4% OOSC into school and has begun a programme to keep individual records of OOSC to try and better reach and monitor them and their families.

The success in bringing children to school is a combination of concerted efforts to identify and provide schools to under served communities and targeted interventions such as 'bridge programmes' and government / NGO initiatives to reach and support marginalized communities.

Currently 98% of habitations of 300 people are served with a primary school within 1 km and 96% with an upper primary within 3 km. 18,712 new schools have been opened and 16,852 been upgraded to upper primary. Decision making regarding the upgrading of schools are made at local level with decisions being referred to the district and reviewed by the district magistrate to ensure sound selection.

A range of 'bridge' residential trainings and out of school programmes are in operation to reach marginalized communities, children of migratory families and those with special needs. The JRM team visited 'bridge' programmes, a Hunar training for Muslim girls and a Gyan Shala school. The team also viewed specialist teaching for children with special needs. In addition the team had the opportunity to discuss the performance of SANKALP (an ongoing programme focused on reaching OOSC and improving student attendance operated by a coalition of Pratham, UNICEF, and M.V. Foundation) with those engaged in its evaluation.

The state is in the process of establishing its own open school. This should provide greater flexibility and responsiveness in certifying 'bridge' courses and thereby offer a 'passport' to transition into mainstream schools for 'bridge course' graduates.

Concerns

While achievements to date are impressive, the plight of the remaining un-served cannot be neglected. A growing population will mean the system will need to accommodate increasing numbers of children while also continuing to tackle with the out of OOSC. The current student: classroom ratio of 82:1(indicates the system is still under immense pressure. Indeed if it was not for the high levels of student absenteeism (observed at around 30-40% rural areas and 50 to 60% in urban areas) schools would be hard pressed to physically accommodate all the children on their rolls.

The State government reports that 12% of existing schools have no permanent building. It is clear that the binding constraint in Bihar is availability of land in the face of ever growing numbers of students. (Bihar is one of the most densely populated states with very fertile land. Within this too its urban areas are about 5 times denser than its rural areas, even though its urban population is only 10% of its total population. After Delhi, Chandigarh, Daman and Diu, Pondichery and Lakshadweep, it is the second most densely populated, with a density of 881 persons per kilometer, West Bengal being the most densely populated state.)This dilemma is brought into sharp contrast by the space and playground requirements prescribed within the RTE. A further concern is that with enactment of RTE it could be expected that a number of existing low fee private schools could be closed for non-compliance. Students from these schools would need to be accommodated in nearby state schools adding to space and classroom pressures.

Recommendations

The mission would encourage the authorities to continue its efforts to digitize and integrate MIS data - equipping survey teams with GPS hand held devices to capture geographical location accurately. (The progress made by Vaishali in amalgamating EMIS and GIS data is exemplary).

In order to minimize survey costs consideration could be given to surveying all schools (primary and secondary) as well as other education institutions (e.g DISE, BRCs) in one survey process.

In preparation for the implementation of RTE un-recognised private schools should also be captured. A comprehensive mapping of the education estate would enable efficient planning and implementation for rationalization of school expansion.

It is clear that land access will remain a key issue in the expansion of education provision in Bihar. The state is already responding through a variety of means including land purchase and building rent. Given the all pervading nature of this challenge the state could consider:

- A comprehensive survey and digital mapping of the education estate and possibly more broadly the government estate. This should move beyond location to include data on compound size, building footprint, building storey's and potential to add additional storey's etc. This could inform future planning regarding expansion, rationalization, and possible change in the purpose of existing buildings.
- Consider the feasibility of alternative options such as larger combined schools served by transport.
- Allow flexibility around the population: distance eligibility criteria for school construction (in line with the above).
- The development of a contingency plan to deal with the absorption of current private school students into government schools in the event of closure of private schools for non-compliance with RTE.

Goal 2: Bridging gender and Social Gaps

A. Gender gaps

Achievements

Enrolment figures provided show a negative gender gap of -2%. While 93% of the girls of the 6-14 age group have been enrolled only 91% of the boys have been enrolled. The retention figures are also higher for girls than for boys.

However, achievement in classes 1 to 5 as studied by the SCERT, continues to show a gap of 3 to 6% between boys and girls, with boys scoring higher than girls.

Review of interventions

School based interventions:

Separate girls toilets have grown from 8,292 in 2005 to 31,664 in 2010.

A cash grant of rps 2000 for purchase of cycles has been distributed to girls of modern cluster schools from the State budget.

Meena Manch

Meena Manch appears to have been successful motivating factor in bringing and retaining girls in schools. Girls who are part of Meena Manch are now bringing out of school child labour back into school, stopping child marriages etc.

Hunar (100% State funded) are two extra-curricular vocational education programs school under the NPEGL focused on bringing back minority girls to upper primary schools. Nearly 14,000 minority Muslim girls participated at 298 centres in the first phase of Hunar. In the second phase 40,000 muslim, SC and ST girls are to be reached. Certification of the trades is being done by NIOS. In the Hunar centre visited most of the girls were already enrolled in schools – hence there is an issue of effective targeting and potential to deliver to original intent.

Auzar: Is a state funded component for giving tools to the girls attending Hunar courses.

KGBV:

In addition to the original 391 sanctioned KGBV an additional 146 KGBVs were sanctioned in November 2010 under the supplementary budget. 388 are now functional with about 36,000 girls enrolled in them. The KGBV girls have also been given an as life insurance cover of Rs. 1 lakh. The girls are also being given training in karate, cycling, yoga and vocational training, e.g., sanitary pad making, embroidery, stitching, knitting etc. The girls in the KGBV visited were very happy with what they were getting.

Concerns

The motivation of girls to study further has increased shown in their increasing retention. Constraints to girls to continue schooling to secondary level need to be addressed.

While vocational training is regarded as important for all. The training currently can only be funded under NPEGEL and therefore is confined to girls.

There is also concern re the adequacy of the Rs. 2,500 grant provided to purchase start up tools on completion of the training.

In the KGBV observed by the JRM, for the 100 places available more than 200 eligible applications were made. Moreover, all the girls housed in the KGBV came from within a 10km radius as the Block we were told is only of that distance radius. This begs a question whether an alternative non-residential approach which provided greater financial support for transport etc. to each student and continued provision of the kinds of excellent after school support and extra curricular activity viewed at the KGBV could be a more equitable option where distance is not a problem. Such observations may warrant further study and consideration pro's and con's of the various models in operation. An across SSA survey on KGBV cost effectiveness and eligibility criteria may be considered to gain better insight into such matters.

Recommendations

Consideration of expanding KGBV, Meena Manch into the secondary level should be considered.

Vocational education should be included as work throughout the education stream including the residential bridge courses.

A nationwide review of KGBVs models and their cost effectiveness against existing demand could be considered by the SSA at national level.

The premium for life insurance of KGBV girls provided by the State Government should be used to cover health instead.

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

Achievements

Progress in Indicators: The retention rate for SCs in primary has gone up from 32% in 2007-8 to 51% in 2009-10. (DISE data). This has also gone up in the upper primary.

The learners achievement among SCs is also increasing.

No discrimination on any grounds was seen in the schools visited.

One cannot say anything on the retention and achievement of the minorities as this figure has not been tracked.

Review of interventions

A range of initiatives are in process for both minority students and Mahadalits.

Minority

21 Residential Bridge Course (RBC) Centre operational for Minority Children in 11 Districts for 6 months.

2810 Batch Remedial Teaching operational for Muslim children in 28 Districts for 2 months.

416 Batch Vocational Training operational for Muslim children in 26 Districts for 3 months.

1000 Batch Special Coaching running for urban deprived children in 10 Districts for 2 months.

160 Batch Vocational Training operational for urban deprived children in 10 Districts for 3 months.

3,770 Talimi Markaz (NRBCs) with over 75,000 children and 815 Madarsas with over 16,000 children are being supported for muslim children. The children in the Talimi Markaz that we visited seem to be very young and was functioning more as a Bal Varg.

Urban Deprived Children: 3 Residential Bridge Course (RBC) Centre operational for Urban Deprived Children in 3 Districts for 6 months.

For Mahadalit

19,442 Utthan Kendras with over 5 lakh children are being run for the Mahadalit populations. We did not get to see any of these as we changed our program from Nalanda to Patna in order to get a feel of the interventions for the urban deprived.

Concerns

The effect of the interventions for minority students are not being tracked so it is difficult to say anything about their impact. These should be tracked for attendance and achievement both.

The caste gap in achievement is still substantial and seems to increase in the higher classes. This needs to be addressed urgently. Remedial classes are being taken up but their coverage is not universal.

Recommendations

The indicators for minorities need to be tracked separately.

As more and more minority students enter schools, there is need to provide them specific out of school support for bridging the achievement gaps.

Efforts to address specific issues on exclusion (discrimination and their social and historical causes) have begun and these could be further pursued with regard to how they are covered in textbooks and through pedagogy in the upper primary.

C. Children with Special Needs

Achievements

The programs related to addressing the children with special needs seen in Bihar were some of the most heartening (though no home schooling was observed). This is an extremely difficult group and the commitment with which the Government of Bihar is taking these initiatives is commendable.

Progress in Indicators

The total population of CWSN is 313,500 out of which 241,995 have been enrolled in schools. Details of CWSN are as follows

Mentally Challenged	40,294
Hearing Impaired	62,650
Visually Impaired	47,396
Physically Impaired	135,221
Multiple Disability	21,791
C.P./Spastic/LD/	6,148

The updating of a CSWSN survey has been completed in all the districts, uploading of new data on website by February, 2011.

Results reported

- 740 resource teachers/ rehabilitation professionals engaged at district level
- 840 children covered through long term RBC with the help of NGOs.
- 2,780 caregivers appointed at CRC level among parents against 4,479 of physical target.
- 5,000 Braille books distributed for VI children.
- 74 Braillers procured for imparting Braille teaching
- ear-mould laboratories established (Muzaffarpur, Saran, Gaya, Sitamarhi, Khagaria and Samastipur)
- 4,507 Orthopedic impaired children were reached through 30 days residential bridge course during June, 2010.
- 4,950 severely CWSN provided support through the Home Based Education Programme (HBEP).
- 19,423 children were assessed for appliances through 152 assessment camps organized in all the districts with the support of ALIMCO, Kanpur.

- 37 CWSN resource centres along with all needful equipment now functional in the districts.
- 76,460 community leaders trained under Pahal module
- 30,640 teachers trained under Samajh module
- 8,000 children were covered under 30 days Residential Bridge Course.
- 2,780 care givers have been provided seven days training.
- 7,040 ramps and 3,400 toilets have been constructed in all the districts.

Review of interventions

The special educators observed working with CWSN were capable, committed and compassionate. Individual child records were being kept

One question is of possible mainstreaming of some of these children into regular classrooms. It is clear that regular teachers in large or even appropriate sized classrooms cannot handle children with special needs adequately. Yet some level of integration could be explored.

While the two training modules for mainstream teachers is a good initiative – its objective can be only to sensitise teachers to CWSN. It is unlikely such short training could equip teachers to integrate CWSN into mainstream classroom and adequately respond to the needs of all.

Concerns

The challenge here is one of sustaining a laudable intervention. The shortage of special educators and high demand for their services across India increases their turnover.

The limited efforts and some degree of integration is a concern.

Recommendations

A system of collating the attendance and retention of such children needs to be included in the MIS systems.

There needs to be a long term policy for integration of the education of children with special needs into the system.

Supply of special educators needs to be assessed along with their requirement and programs made to fill the gap. Simultaneously, in the process of revamping the teacher education system, the education of children with special needs to be integrated at a more fundamental level.

Teaching in groups is something that can be given impetus by integrating children with special needs. There are good examples of this being put into practice from Pune district.

Goal 3: All Children Retained in education system

Achievements

Progress in Indicators: Transition rates from Primary to Upper primary according to DISE (as quoted by Results monitoring) show that these were 71.23% for boys and 74.13% for girls for 2009-10, while the retention rates at the Primary level were 54.63 and 55.73 respectively and that for upper primary were 83.74 and 91.87.

It appears the State's focused efforts on retaining the girl child in school (discussed above) are yielding results so much so that they are leading to a greater number of girls retained in comparison to boys.

Attendance is another indicator that we checked on our field visit to schools of two districts – Vaishali (Rural) and Patna (Urban).

The attendance in the rural schools was found to be good ranging from 62% to over 80%. An unannounced visit to a primary school – P.S. Sreerampur, yielded 80% attendance.

In the urban schools that we visited, the enrolled numbers are pretty high but attendance is very low – between 35 and 45%.

According to a study commissioned by the BSSP and done by the ADRI:

- The total enrolment in class I is 3,486 thousand of which the normal attendance works out to 69.7 percent. A similar trend of attendance may be observed in all the classes upto class VIII.
- Around 20 percent of total enrolled children attend classes infrequently.
- Anecdotal evidence suggests the low attendance in urban government schools could be due to large numbers of students attending low fee private schools. Furthermore, that these students first register in government schools to ensure access to free textbooks etc before moving to these private schools. We were unable to visit any low fee private schools but further investigation of this area is required as this double enrolment will skew state figures.

It was heartening to see that attendance records are being kept regularly and honestly and not being fudged. This is a very positive sign and no investigation into attendance and its causes should in any manner penalise this honesty.

Review of interventions

The effect of strategies to bring and retain girls in school is showing both on their attendance and retention rates which are much higher, sometimes higher than boys.

Absence of figures for the retention and attendance of minorities and other social groups precludes meaningful comment on the effectiveness of the strategies on them.

The huge expansion of additional classrooms has led to a reduction of SCR to 82:1 which was 99:1 earlier. RtE norms of 1:40 for primary and 1:35 for upper primary means requires for a further halving of the ratio requiring the building of 261,152 classrooms.

Recruitment of teachers is being done with a sense of urgency – over 2 lakh teachers have been recruited over the last few years (30,000 only last year). Currently 334,308 teachers are in place but an additional 3,14,906 new teachers are required to move from a TPR of 1:57 to one of 1: 40 (and 1:35 in upper primary schools) .

The TPR has grown from 1: 53 in 2008 to 1:57 in 2010 as more children have entered school than the state has been able to recruit teachers.

The state has formed its SCPCR and issued orders regarding no corporal punishment and no expulsion. A congenial atmosphere was observed in all schools visited. No rudeness of teachers to children, there was no scale or stick on the teachers table even where we reached unannounced.

Concerns

The State faces a huge challenge in terms of numbers. As its enrolment and retention strategies on the demand side meet with success the supply side of building classrooms and recruiting teachers becomes a challenge.

Finding trained teachers is the greatest challenge as by the state's own estimates over two lakh teachers would need training after recruitment. The State has taken cognizance of this issue and the UNICEF has done a study of the conditions in the State's 61 recognized teacher education institutes and many older institutes which were not recognized by NCTE. However, as Bihar until relatively recently had a policy of not recruiting trained teachers, most of these institutions have fallen into disrepair. This issue is being flagged here but will be taken up in the quality section in more detail.

A major concern is the retention of the urban deprived. Government schools in the urban areas have very low attendance. If attendance were to increase, there is no space for additional classrooms and there would be no place for them to sit. It is said that the children are going to unrecognized private schools. We would have liked to visit some of them, but due to lack of time were unable to do so.

Recommendations –

The attendance needs to be collated in a meaningful manner so that it facilitates child tracking. It is suggested that the number of days that a school works needs to be recorded. Summary monthly statements of children present for more than 75% of the days, number present for 50% to 75%, those present for 25% to 50% and those who did not come at all (0 attendance), could be collated class and school wise and then cluster, block, district and State records could be collated similarly.

The children in the 3rd and 4th categories could be independently tracked and supported more by not only the teacher and H.M. but also the CRCC, BRP etc.

While only a few schools were visited, a pattern of lower middle grade class attendance was observed. This could be explored further.

A separate strategy for the urban deprived for access, retention and quality needs to be developed, both at State and National level.

Goal 4: Education of Satisfactory Quality

Achievements and review of initiatives

Curricular, Syllabus and textbook reforms

BCF 2008

Curriculum, syllabus, textbooks, teacher education and student assessment need to be aligned with each other in order to pursue the objective of quality education. This review of initiatives for quality education attempts to assess to what extent are these aligned and to identify some gaps as well as suggest some areas for further work.

The Bihar Curriculum Framework had been published in 2008 taking cognizance of the National curriculum Framework 2005. The BCF should be a good reference document, the lack of page numbering and indexing makes it difficult to refer to as does its fine print and rather obtuse language.

A curriculum framework has two purposes – to provide a framework for action – otherwise it tends to become a pious statement not taken too seriously and to provide a basis for critical discourse on educational issues. Having the document available in English as well would facilitate its larger dissemination and discussion which would clarify and take many ideas forward.

A cursory reading of some sections of the document reveals that while its general approach is in the same direction as the NCF, there needs to be conceptual clarity on a number of issues to be able to carry these ideas into implementation. For example the approach to the acceptance of the child's language but the approach to learning to read, comprehension and writing is not very clear.

There is a separate chapter on a syllabus for Rural Education and one on school based curriculum. The chapter on rural education seeks to address the issues of basic schools and learn from them.

Both these chapters stop at some rhetoric about the rural scenario and about the specificities of school. While the chapter on school based curriculum does have a section on how a school based

syllabus can be made, they do not engage with the relationship between this syllabus and the state syllabus or textbooks.

Syllabus 1 to 5

In order to implement the BCF, Bihar has developed the syllabus for classes 1 to 8. This syllabus covers the main school subjects but has nothing to carry forward the issues of rural and basic education, and school based syllabus development.

The positive features of the syllabus are that music and art sections have been included and there are separate syllabi for Hindi, Urdu, Bangla, Maithili and English. However, recognizing the multilingual situation of the state, there is no clear indication of a multi or bi-lingual approach to instruction.

The class 1 and 2 syllabi for Hindi struggle with trying to reconcile the whole language and the alphabet approaches. At class 3 level no reading or writing levels are indicated. What is rather disconcerting is that the chapter topics for the language textbooks for classes 3 to 5 have been specified and these are quite inane. We do not have the new class 3 and 4 textbooks to be able to say whether they have overcome this barrier.

We have seen some of the new textbooks. The content of the class 2 language (Hindi and English) and Maths books, the class 4 Maths and English books seem to be reasonably good. The texts in the English books could do with some improvement and could also use more and shorter texts also as part of the exercises. The visuals leave much to be desired.

Similar positive and negative issues would there with all the subjects, which would require in depth review by experts across the country.

Teacher availability Teacher recruitment

Teacher recruitment has been slow compared to demand. Only 30,000 teacher were recruited this year. In addition a large number of untrained teachers are being recruited. There are four kinds of teachers at the moment – regular teachers of the older cadre, prakhand shikshak for the upper primary schools, panchayat teachers for primary rural schools and nagar shikshak for urban primary schools. The expenditure on salaries for these teachers is being borne by the State government while they are being recruited by the decentralised bodies. They also earn much lower salaries than the regular teachers.

They have to pass a qualifying test after 3 years but their long term career paths are not clear as they are on fixed pay, with a fixed increment of 350rps every three years. Recruitment rules are being revised.

Teacher training

Bihar has been recruiting untrained teachers for the last many years. Two years ago tied up with IGNOU for its pre-service training needs in distance mode. This is at present not recognised by

NCTE. Since DIETs have been defunct there does not seem to be a method of mentoring for the classroom internship.

In the last two years there is an attempt to revive the DIETs and pre-service D.Ed. classes have begun. This syllabus is better than the old syllabi for D.Ed as it takes cognizance of child centredness in education, the syllabus structure is still constrained by many factors. 45 periods have been allocated for field tasks including practice lessons and action research, as mentioned by Dr. Moin. The thinking seems to be there to go towards internship.

However, though the syllabus for these courses was revised only two years ago, as the NCTE revised curriculum and syllabus that allies with the expectations of the NCF 2005 has come only in 2010, there is need to revise and strengthen the Bihar D.Ed.

In-service training:

A series of in-service trainings has been the focus of the SSA and earlier DPEP programs in Bihar. Various modules of such trainings have been developed and transacted. There is also a concern about the impact of such trainings on the field.

Bodhi Samvad module and an associated resource material have been developed for the training of primary school teachers. The resource material compendium has some good articles but is a mixture and the framework of use is patchy. It is not possible to review these in much detail here but a brief observation of a training at a BRC in Vaishali District on Maths teaching revealed that the trainers were not clear about why they were doing the session. On looking at the session in the module, it revealed that the fault was not entirely the trainers but the module too had inadequacies of understanding. The resource paper referred to in the module for the 6th day is not there in the resource material compendium.

While the approach in the Bodhi Samvad module is laudable in that it has included reading and reflection in the training, but the time is too little as it attempts to cover all the subjects and gives just two days for each subject.

A large number of stand alone training programs for teachers are also done in the form of 1 day, 2 day and 5 day modules for access, Sankalp, Inclusive education, reading enhancement program etc. There does not seem to be any coordination between these trainings. It is more in the perspective of instructions about what is expected of the teacher on various aspects. This does not build a holistic vision of education in the mind of the teacher.

Due to time constraints we were unable to see any module for upper primary school teachers being transacted.

The training, seem to have opened up the teachers' receptivity to the kind of child centred and constructivist education that the curricular frameworks are setting the stage for.

Availability and use of teaching learning materials

Textbooks are available with all children. The textbook distribution system has been strengthened – textbooks for the new session have already been received by many BRCs.

While the Bodhi Vriksh (RIP) books were distributed to all schools and were found in all the schools visited – only a few books in some schools (none in the urban schools) were displayed – most of the books were in the cupboard in the office. Training is said to have been imparted at all levels, but the content of the training is not clear – set of guidelines have been issued for the use of books, but these seem to be inadequate. Other teaching learning materials are also available in schools but not being used. In some schools some maths materials were seen to be used. In one place even in a crowded classroom a plastic model of the skeleton was being shown in the context of a human body lesson.

Thus one can say that materials supplied are being marginally used. The reason perhaps is the lack of appropriate/sustained training and support.

Teacher support and academic supervision

The BRCs, BRPs and CRCs are in place and have a regular routine of school visits and meetings. But the issues that seem upper most in their minds is collecting data on progress of the schemes for enrolment and retention like midday meals, school and classroom construction etc. These are extremely important and need to be laid out in order that quality issues may be taken up. But it is too much to expect one person to do both.

In Vaishali District the DM has instituted his own mechanism of supervision of all departments including schools. These have most of the information gathering on school programs like midday meals etc. Whenever quality issues are to be taken on board seriously, a full time academic coordinator for the task of quality will be required. They and the full time BRPs would need continuous academic mentoring and enrichment themselves. The framework is one of supervision and identifying hard spots. There is no space for the CRCs and BRPs own academic rejuvenation as both are inundated by collection of scheme data. They also do not have good educational libraries and access to internet.

Classroom practices:

Classrooms are quite bare, except for the class 1 classrooms being called anand dayi kaksha and painted with the pyaasa kauva story and certain number and alphabet chart.

Groups were not seen to be functional anywhere, not even where space and number allowed. In fact the teaching system seems to be quite traditional. Yet the relationship between teacher and learner is very congenial. Children are happy and eager to learn. The next stage of moving to more learner centred pedagogies would be possible only when classroom sizes come down and teacher training and teacher support systems are strengthened down the line.

Some materials in Maths is being used in a few schools.

While the children's newspaper Chal Padh Kuchh Ban is an interesting and exciting initiative efforts need to be made to ensure it is fully integrated in the classroom learning programme. The appropriateness of name of newspaper and some of the materials could be regarded as antithetical to the approach being propagated by the BCF.

An exception was the Basic school (Bhagwanpur Rati part of the Buniyadi school category of schools established by Mahatma Gandhi during the freedom struggle) in Vaishali District. In spite of being an upper primary school, it has not been integrated into the elementary school department. It has a lot of land but is totally neglected. Attendance here was around 40% and teachers had not been paid salary for the last 3-4 months. No pedagogical intervention seemed to have reached here.

Thought the DIET practice school was closed due to election duty of the teachers of the block, we got the rooms opened and found that this school to have fallen into disrepair and do not show signs of any student activity.

Pupil Assessment Systems:

Bihar is in the process of moving to CCE. It is trying to develop the CCE system and has held a couple of workshops for this. Meanwhile it has continued with the half yearly exam and will perhaps do the year end exam this year. We did not get to see the exam papers but were told that these are set and corrected at the cluster level.

Student learning levels

Student learning levels seem to be reasonably good according to ASER, the SCERT Learners' Achievement study and the NCERT mid-term assessment results. However, both gender and caste gaps in learners achievement persist.

Concerns

Stand alone training modules may not have amounted to a cumulative effect on quality and may even have given rise to some cynicism or confusion.

Bihar has a long way to go to be RTE compliant as is clear from the need for teachers and classrooms. Under the circumstances, it is natural that quality issues have received a greater priority only in more recent times.

One of the concerns is that since campaigns for enrolment and retention have been successful, there may be a tendency to take up a campaign for quality enhancement. It has to be appreciated that improvement of quality is a long term endeavor and needs to be prepared for in a parallel manner.

The Bihar Government has taken these issues on board

Recommendations

Short term recommendations: A thorough review of BCF, Syllabus, text books and teacher training modules and quality programs like Reading Enhancement Program needs to be undertaken with a view to creating synergies and alignment and improving these efforts, not totally changing them.

Schools need to be oriented towards displaying children's work in the next round of quality initiatives.

Supplementary reading materials (many have been distributed) need to be made more readily available.

Greater availability of resources for teachers (books, computers, internet connection) should be considered at the CRC and BRC levels.

A program of implementing group work and pair work with certain chosen activities can be taken up through the CRCs and BRPs.

Medium term recommendations: There needs to be a comprehensive and understanding of quality and a coherent long term plan (shared and owned) by teachers for its implementation. Formation of a resource group at State, District and Block levels and building their capacities and understanding of quality through workshops and certificate courses can be the starting point. The Bihar Government and Unicef seem to be moving in this direction.

The CRCC needs to be freed from information gathering tasks (this would best be undertaken by specialist MIS bodies) in order that they can deliver instructional leadership and motivation.

Long term recommendations:

In the long term there needs to be a perspective and strategic plan to develop teachers, teacher educators. Bihar has a requirement of over 6 lakh teachers of which over 2 lakh teachers will be untrained. The availability of graduate teachers for upper primary will have to be ascertained.

There is a huge task of training untrained teachers as training institutes have been defunct for quite some time. Pre-service training in an in-service online or dual mode needs to be employed.

There will be a huge requirement of qualified and competent teacher educators and mentors. The idea of a separate cadre of teacher mentors and educators should be seriously considered. Moreover the importance of bringing good teachers who have practical experience into the teacher educator cadre is to be encouraged.

The teacher education and teacher educators education courses need to be revised drastically in line with NCFTE framework.

In addition the in-service training needs to be looked at as a complement to pre-service in terms of certificate courses building up to diplomas and later even to degrees.

Computer Assisted Learning

The JRM team witness two CAL centres in operation while this is a small sample some serious questions were asked about the relevance and cost effectiveness of CAL as currently practiced.

As currently practiced there appears to be no defined learning objectives or supporting teacher or student materials to the existing programme. The schools observed had been provided with a set of computer equipment but no defined learning objectives (e.g. by the end of x the students should be able to use the basic functions of MS word, Excel and powerpoint). In the activities observed students were mainly drawing pictures with a very basic programme (wordpad). In the one instance where Microsoft Excel was being used students were unfamiliar with very basic functions. The selection of E learning CDs was also questionable. For example one covered the human skeleton – however previously in classroom visits we had seen good quality instruction on this topic using a simple plastic model and students feeling their own bones.

A second concern is that computers appear to be provided in lots (generator, 3 computers, UPS, integrated projector and processor K-Yan and a selection of digital learning CDs) irrespective of need. Both schools visited were on mains electricity and yet had been provided with a generator.

Though it is acknowledged the project has been awarded a South Asia award (MANTHAN) for digital inclusion – the general impression gained was computers had been provided under the assumption that their presence would automatically improve learning and with no thought as to what learning was desired, where computers could best be deployed to add to learning or how to support teachers to deliver desired outcomes. Given the great expense of providing computers the following observations are provided for consideration:

- Central SSA authorities review the degree to which existing norms allow for innovation.
- Central authorities provide more comprehensive guidance based on existing international experience on the introductions of computers into schools. (The World Bank’s edutech website provides useful guidance on a range of issues associated with CAL in schools. Of particular use is the very brief overview of ‘worst practice’ designed to enable education authorities to not repeat the mistakes of others in their IT for schools strategies. See <http://blogs.worldbank.org/edutech/worst-practice>).
- Creating computer ‘literacy’ amongst teachers is an important first step in introducing computers into schools. Thus ensuring teacher competence with computers by equipping DIETs and BRCs along with appropriate support materials and training could be considered.
- The potential of a desk top computer and printer when linked to the internet via broadband in terms of: distance education and training, rapid information sharing and data transfer is massive. Given the teacher training challenge internet access for DIETs and BRCs would greatly enhance the potential for distance teacher education.

- Clarity over what children should be expected to be able to do with a computer should be defined before introducing computers into schools. In most instances basic operation of word processing, spread sheet and presentation software linked to existing curriculum goals in maths, science and languages would be preferable (i.e. using Excel to generate a pie chart when doing classwork on percentages) to random CDs on subjects many of which can be taught more effectively in a classroom context.
- Having workbooks that explicitly link curriculum goals to computer based activities that can be completed by the student would better integrate computer use to curriculum learning.

Financial Management

Financial Progress

The reported fund utilization (% expenditure against funding) was reported as 99% for 2009/10 and 75% as of 31.12.2010. State records indicate total fund releases for 2010 were 204789.63 for GoI and 83012.42 for GoB.

While the utilization rate over the last two years appears impressive, however a note of caution is warranted. Those district offices visited suggested that funds disbursed to lower level fund users (e.g. BRCs, KGMVs) were deemed as expenditure though it was difficult to verify the degree to which transfers from district office and been fully utilized by lower level spending agencies and the extent of the remaining balance held in their accounts. It was encouraging to note that no concerns were expressed during the mission about delays in provision of funds.

GoB follows national procurement guidelines – utilizing competitive tenders. Large procurements are generally done through government agencies: Elimco for stationery, the State Electronic and Development Corporation for computer goods and State textbook board for textbooks. At district and BRC level procurement is generally through local shopping. The state had received a clean bill of health from MHRD who on a procurement audit conducted in 2009.

Discussions with the V.K. Verma state accounts officer suggested that audit is taken very seriously. The internal audit for 09/10 (conducted on a quarterly basis) has been completed in all districts and the statutory audit will be completed within the next two weeks. The statutory audit is undertaken by chartered accountancy firms listed on the CAG list as competent for public sector audit. In addition the state does not allow audit companies to undertake the audit of the same accounts for more than three consecutive years.

The audit of a one third sample of school committees spending more than 1 lakh rupees is currently underway. The delayed start on this work is explained by the disruption caused by recent elections. As civil works is predominantly done by the village committees in Bihar around 95% of all school committees spend over 1 lakh thus it audit is a significant task. 35 CA firms have been selected to undertake this task and the state has provided additional training and a standard format for reporting to ensure smooth execution and results to be returned in a user friendly format. In addition, it has been instructed that the audit should cover a two year period in order to enable particular scrutiny of closing balances and bringing forward of monies.

Financial Management and Procurement

Achievements

The accounts staff in the SSA SIS should be fully recognized for the efficient disbursement of funds and procurement of goods. Without their efforts none of the broad range of activities delivered by SSA would be possible.

Progress has been made in the use of electronic transfers with funds from the state project office being transferred through electronic or RTGS (bank advice). It was also noted that the SIS has also rolled out Tally 9 computerised accounting software across all DPOs.

The JRM notes the rigour with which financial irregularities from the 2009/10 audit of 80.38 lakhs in Arraria, 8.28 lakhs in East Champaran and 17 lakhs in Aurangabad have been pursued. It is important that the SIS fully report on the final outcomes on resolution to demonstrate their commitment to transparency and the following of due process.

The SIS financial team should also be applauded for their selection of an delivery companies (Prakriti Enterprises, MaFY, Inductus) selected from a panel approved by UNICEF to source the assistant accountant / data entry operators. Feedback to JRM members suggested this had been an immensely successful and cost effective initiative, rapidly filling a large staffing of over 200 staff with competent staff who bring fresh skills, assist with systems maintenance and remain strongly motivated.

The SIS financial team should be congratulated on their efforts to build staff capacity. 842 days of training were provided last year. The establishment of an internal audit cell – which will enable accounts staff to peer review accounts across the state and share experiences is also to be applauded.

Concerns

While considerable effort is being made to audit the Vidyalaya Shiksha Samitis (VSS) spending more than 1 lakh rupees there appears to be significantly less attention with regard to scrutiny of bodies such as BRCs, NGO's funded to provide bridge programmes and KGBVs many of which routinely spend considerably more than 1 lakh rupees. (To note the chief accounts officer reported that plans were in process to audit all KGBVs). This is to be applauded. None of the BRCs visited reported having being audited in the last three years. It is understood that the accounting end is at the district level and that DPO payments are adjusted on receipt of various types of documentary evidence and statements of expenditure. However, in the visits made by the JRM the level of reporting and use of evidence to verify bone fide expenditures were made was variable – in such a situation it is difficult to verify appropriate utilization leaving all parties vulnerable to allegations of misuse.

In response to concerns about text book provision and quality the SIS commissioned a third party review undertaken of Text Book Distribution and Utilisation by ASSERT Patna. This is a

positive step, however falls somewhat short of the intention stated in the 11th joint review mission (paragraph 2.50) which suggested an intention to review ‘the whole process of textbook printing and distribution’.

Salaries funded by SSA constitute a significant proportion of expenditure. At least two channels of payment appear to be used in this matter. Firstly funds transferred via the district to the BRC who then pay BRC and CRC staff (as distinct from teachers) directly. The second involves transfers to the DSE who then transfer to the Panchayati Raj Institutions who provide salary to PRI teachers. The detailed mechanics of these transactions were complex and varied considerably between offices – in some instances bulk salary transfers of two to six months advances were being made in others payment appeared to be paid in arrears after deductions for absenteeism had been made. This is clearly a complex issue and the mission did not have the time to pursue this in great detail, however given the size of payroll payments this would seem an area where further review with a view to developing practical guidelines on teacher salary transfers is warranted.

In line with previous finding of the statutory audit the review team found asset management and the keeping of asset management registers to be weakly developed across the institutions visited. In all visits mission members requested to see the establishments computer equipment. Of all the institutions visited only the state office had a registration number visible on said equipment. The importance of registering and clearly marking such high value equipment (and registering the same within the audit book) is essential both to deter theft and to protect the integrity of the institutions staff.

Asked of the major challenges in undertaking accounts duties in all offices visited by the JRM staffing was the consistent answer both in terms of number of unfilled posts and capacity of staff recruited. Post the HR company recruitment of assistant accounts/ data entry operators the majority of unfilled posts are accounts assistants at district level. It was also reported that the current salary, terms and conditions were insufficient to attract and retain staff of sufficient calibre. There was a clear view that it was possible to take on inexperienced staff and build their capacity – however if SSA was unable to retain their services then it would not reap the benefits of the investment made in these staff.

Recommendations

An expanded third party evaluation that looked beyond distribution to include scrutiny of whether contract specifications pertaining to : weight of paper, quality of binding and printing are being adhered to as well as compliance with the FMP manual with regard to sub-contracting would further strengthen the culture of due diligence being pursued by the SIS.

Given the size of the transfers to BRCs and some NGOs operating bridge courses consideration should also be given to periodic audits of their books. This would provide useful feedback on strengths and weaknesses and how to further improve the financial management system.

The size of the teacher payroll transfers from districts and variation in systems being used suggests value in gaining a better understanding of process with a view to develop best practice guidelines and focused training for staff. This should include periodic payroll checking.

Given the success of the HR initiative to recruit assistant accountant/ data entry operators it would be worthwhile considering expanding this approach to cover other areas of staff shortage.

Attention should be given to existing employment packages to particularly with regard to staff retention. It was reported that the management element expenditure for SSA was currently around 2% where the budget ceiling for the management overhead was 6%. Therefore there appears to be some leeway to make the packages of SSA staff more attractive.

The process of verification of appropriate use of BRC expenditure was variable. The major expenditure for BRCs appears to be residential training costs. It would be helpful to provide guidelines to BRCs as to what information should be submitted to verify legitimate expenditure. Variously some or all of the following had been suggested: attendance register, food invoice, training programme, DRG report following inspection.

The use of a (set) of participant evaluation forms filled in on completion of the course – detailing views on the quality and appropriateness of content, competence of trainer, catering and ways for improving the course etc may be helpful both in (i) verifying overall numbers of those trained; (ii) giving insight into participant views on the quality of what is being provided and how it could be improved.

As much of the procurement was done through government sanctioned institutions the JRM was advised there was no felt need for a state procurement plans or procurement MIS. In current circumstances with a competent and well established team with a strong institutional memory this may well be the case. However, looking to the future it would be sensible for the SIS to make such documented plans to enable smooth transition when key staff retire or move to other jobs.

The JRM team saw no evidence of the use of public disclosure of VSS financial information (e.g. a simple table of receipts and expenditure with dates on public display). International experience shows that this can have a massive positive impact on financial probity. Providing a format for this to be done along with guidance on why it is beneficial and how it can be done could be considered. Similarly on civil works there was some evidence (though not at all sites visited) of public display of construction information consisting of: total estimated cost, financial year of grant, advance given, date received, detail of work currently underway, name of engaged masons and numbers of labourers. Consideration of a revised format for display on building sites is provided below (recommended changes in bold).

Construction type	
Estimated Cost	
Start / estimated completion date	
Amount of grant received to date/ date received	
Current funds balance (spent / funds remaining)	
Contractor / chief masons name	
The measurement book and site book detailing all construction related expenditures and site observations is available for view from the school office.	

Program Management

Bihar covers a vast area of over 94,000 km² and a large (8.29 crores) and fast growing population. In this context programme management is generally good – using a decentralized model and utilizing the expertise, commitment, knowledge and dynamism of communities, NGOs and the private sector as appropriate.

Staffing and capacity building

As a recent study reported the quality of an education system cannot exceed the quality of its teachers. It is clear the state government is making a concerted effort to both recruit more teachers and upgrade existing teachers through in-service training to both meet need and comply with RTE. It still has a daunting challenge to face with an estimated 314,906 teachers required. Furthermore it is not clear to what extent this figure factors in (i) staff attrition e.g. due to retirement (ii) a breakdown in terms of subject specialists at upper primary level (critical for planning around shortage areas of Maths, Languages and Science).

Achievements

The state government should be commended for their concerted efforts to reinvigorate the decentralized state run teacher training apparatus and for their use of distance in-service training models (see also quality section).

In addition to teacher education there was reported evidence of training across the SSA activities from capacity building of auditors and accounts staff, block level training, to community mobilization on school sanitation and hygiene and orientation and training for VSS, PRI and community members.

Recommendations

Given the magnitude of Bihar’s teacher staffing challenge a more comprehensive approach to labour force planning could be considered. This should not only capture data on the existing stock of teachers gender, qualifications, age (important in planning for retirement loss) etc but also; current levels of attrition and projected need as against population growth and RTE requirements.

Given Bihar's strong focus on quality improvement it would also be important to pay particular attention to the needs of subject specialist teachers. Though it is recognized there are significant political/and organizational challenges in the light of chronic shortages in key subject areas – maths, languages and science the feasibility of deployment of subject specialist teachers to serve across both upper primary and junior secondary levels could be considered (e.g. either through combined primary/junior secondary schools or deployment of teachers so they teach across grades in separate schools).

Monitoring and Supervision arrangements, Monitoring institutions

Because of time the JRM team were not party to meetings with the two monitoring institutions. With regard to EMIS the state has historic data going back to 2002/03. A household survey was conducted during 2009 to further strengthen understanding of provision and need. DISE data for the year 2009/10 has been submitted to GoI. The state is developing its capacity in using IT based data management and sharing. This includes: a website for sharing DISE data and providing programme updates (including on recruitment thereby strengthening transparency) (<http://bspssa.org>); a web enabled project monitoring information system (<http://bicssabihar.org>) and a individualized child tracking system for OOSC and children with special needs.

The JRM noted a growing culture of monitoring and research being commissioned which was very encouraging. However, the real value of such efforts is not in the number of reports produced – but the use of findings to inform and refine policy and implementation.

Data issues, EMIS etc

The JRM team were impressed with progress on data collection processes. Of particular note were (i) the use of a private sector agency to address staff shortages at block level and (ii) the use of the same agency to develop an interactive web based data sharing website (iii) the production of unique data entry forms for each school (which had all non-dynamic information, school name, number, location etc already filled in). In combination these initiatives: significantly reduced the burden on school staff for completing the form (i.e. they had only to verify pre-filled sections and then complete fields that change year on year); increased accuracy in reporting and aided the speed in which data could be collected and returned; increased the potential for data sharing, and analysis.

Discussions were had with MIS staff about how to further increase the efficiency and accuracy of data entry and collection while reducing the burden on school staff. An interesting suggestion worthy of consideration would be to equip block level data entry operators with a laptop and spare battery (and possibly GPS units) in order that they could conduct enumeration on site entering data directly as a digital format. This could have benefits in terms of improving accuracy (and verification) in data input and possibly speeding up returns – however would have travel cost and time implications.

As discussed previously there is scope rationalisation in the surveying of the educational estate and its GIS mapping. It is recognized that this goes beyond the mandate of the SIS and is a broader question of collaboration amongst the different state departments of education.

Research and evaluation

As noted above there is good evidence of a culture of research and evaluation in Bihar. The body of work demonstrates a focus on pertinent topics and the utilization of a broad range of providers from within the state and further afield. The real utility of this work is however not in the number of reports produced but the degree to which it informs policy. Moving forward it may be helpful to incorporate studies that synthesis findings from rigorous Indian and international impact evaluations include randomized control trials that explore unit cost data and better enable 'value for money' decision making around future policy options being considered within the state; similarly to commission such work to be undertaken in Bihar as a prelude to policy reform deliberations.

Community Mobilization and Management

The responsibility of elementary education is given to PRIs. Responsibility for key decisions including: teacher recruitment (Panchayat, block and district level); opening of new primary schools (Panchayat and district level), upgrading primary to upper primary (block level) are all responsibilities vested in the PRIs. Monitoring of school performance is undertaken through community meetings (Aam Sabha). While the annual School Elementary Education Plan (SEEP) is prepared in consultation with the community.

School management responsibilities in Bihar are undertaken through the VSS. The VSS is a sub body of PRI institutions and hence strong linkage has been established between VSS and PRI. The VSS is constituted through state wide elections held every 3 years with the next election scheduled for third quarter 2011. The VSS consists of 15 elected members of which 9 are parents. The elected members then select the VSS secretary and chair. A dual signatory system is used for funds release – with the elected secretary and school principal being cheque signatories. In light of the forthcoming elections civil works programmes are currently being organized by Ad Hoc committees.

Civil Works

The mission members were struck on their site visits in the contrast in build quality between buildings constructed under DPEP and SSA. Without exception DPEP buildings were of a much higher quality and incorporated environmentally efficient materials such as use of filler slabs and rat trap bonding which increased insulation and reduced material cost. It is important to stress this is not a reflection on the efforts of the civil works staff more a consequence of the mode and urgency of implementation. DPEP was a small pilot project using especially trained constructions teams. SSA has stressed rapidly building expansion. To meet demanding SSA building targets, Bihar (as with most other states) has used local shopping for construction. This has delivered the desired results of rapid expansion at low cost. However, it was explained that

the trade off has been that local masons were not able to use materials used under DPEP nor build to the more complicated designs.

The lack of build space was the other consistent observation of the JRM. It was clear in many locations that to deliver school expansion in many locations the ‘only way is up’. It is therefore important that all future civil works are undertaken with the contingency to add further storey’s to buildings at minimum disruption and cost (this contingency is in place – however the number of storeys needed will vary by location and plans may need to be review to better reflect this).

The JRM team were pleased to note the inclusion of design features such as larger and lower windows to improve light availability and installation of ‘force and lift’ hand pumps which enable gravity fed flushing toilets and multiple hand washing points. However, from the inspection of sanitary facilities even with this innovation there is still a long way to go in terms of sanitation and health education to deliver the behaviour change that would lead to consistently clean and useable toilets.

Building compliance is particularly important when constructing multiple storeys in an earthquake zone. Further consideration by technical experts may be warranted. However two possible options to meeting the more demanding task of building for vertical expansion are presented. Clearly both models could be deployed simultaneously.

A revisit of the DPEP model: While DPEP designs were flawed in Bihar because they did not allow for vertical expansion – their build quality is exceptional and long term maintenance cost are likely to be lower. Given the continued expansion in school building (at both primary and secondary levels with RMSA) it may be worth revisiting the DPEP approach and training up ‘school building teams’ who move around the state building schools (of a new non DPEP design) to higher specifications, using better quality materials and delivering better finish quality.

Strengthening the quality assurance and building oversight: If local shopping is used for school construction and buildings are being constructed as potentially multiple storey then further strengthening the inspection regime (which should be commended for already utilizing third party monitoring and quality assurance and technical supervision) may be warranted. Ensuring inspections are booked at critical points of build – such as piling and laying of foundations, setting of earthquake bands – and that builders require sign off from the appropriate technical authority before proceeding further could be considered as an important additional safeguard to build quality. (this is currently in formulation for third party evaluations).

The regime for engineers inspecting building work could be reconsidered. The rescinding of the requirement of engineers to do a quick review of the ‘measurement book’ to ensure appropriate quantities of materials needed and that materials that have been purchased at a fair market price seems anomalous with broader efforts evident to strengthen both technical and financial oversight.

As virtually all SSA schools are offering free hot school meals there is a case (not specific to Bihar) into providing national guidance on options for low cost, fuel efficient stoves (i.e. solid

material, biogas etc). This could make a contribution to reducing environmental degradation, reducing health risks to cooking staff and reducing CO² emissions.

Finally a universal complaint from school management was that the maintenance budgets were inadequate to keep schools in good repair. Given the consistency of this complaint it warrants further investigation. Perhaps one possible option could be to provide a flat maintenance grant on a yearly basis for painting and minor plastering etc – and a more substantive grant on say a five year cycle to cover more costly repairs. A emergency maintenance fund could be established for repairs caused by exceptional circumstances would schools could apply for – with release from the authorities following an damage assessment inspection. The cost effectiveness of doing this through commercial buildings insurance could be explored.

Conclusion

Bihar has made tremendous strides in providing access to education for all. It is widely recognized the challenge now is to deliver a meaningful quality of education – meaningful learning which will contribute to individual, social and economic growth. Key to success in this area are teachers. The state is right focusing on re-invigorating its teacher education infrastructure for both in-service and pre-service. Ensuring that teacher trainers and mentors at district level are fully equipped to deliver regular instructional leadership will be critical. This would relate to time available to bring teachers together, regular exposure to fresh ideas and the tools to better enable sharing of learning.

The state should also be prepared for as quality improves so will enrolment and attendance. This could possibly include the migration of students back from the private schools into the government system. Classrooms are already overcrowded in Bihar – regularly higher rates of attendance would push the system to crisis point. It is therefore essential that a comprehensive school expansion plan is put in place which takes stock of existing land and building availability and considers the feasibility of radical solutions such as re-designation of purpose and combined grade schools.

Computers could play a critical role in improving the system. They are already being effectively deployed to improve financial administration and EMIS. However there are still considerable gains to made in these areas – notably the computerization of school record keeping. IT could also play a significant role in building teacher competence at through DIETs and BRCs particularly when harnessed to the internet.

Bihar has made tremendous strides in providing access to education for all. It is widely recognized the challenge now is to deliver a meaningful quality of education – learning which will contribute to individual, social and economic growth. Key to success in this area are Bihar's teachers. The state is right focusing on re-invigorating its teacher education infrastructure for both in-service and pre-service. Ensuring that teacher trainers and mentors at district level are fully equipped to deliver regular instructional leadership will be critical. This would relate to time available to bring teachers together, regular exposure to fresh ideas and the tools to better enable sharing of learning.

The state should also be prepared for further student increases for as quality improves so will enrolment and attendance. This could possibly include the migration of students back from the private schools into the government system. Classrooms are already overcrowded in Bihar – regularly higher rates of attendance would push the system to crisis point. It is therefore essential that a comprehensive school expansion plan is put in place which takes stock of existing land and building availability and considers the feasibility of radical solutions such as re-designation of purpose and combined grade schools. The whole area of civil works processes could also be reviewed to ensure the more exacting demands of multi storey buildings in earthquake zones are fully accounted for.

Computers could play a critical role in improving the system. They are already being effectively deployed to improve financial administration and EMIS. However there are still considerable gains to be made in these areas – notably the computerization of school record keeping and integration of MIS and GIS data. IT could also play a significant role in building teacher competence via the DIETs and BRCs particularly when harnessed to the internet. The whole area of priority in targeting education IT expenditure and CAL in schools would benefit from further considered attention.

Bihar has made strong progress with financial management. Its use of private sector contracting to fill large numbers of vacancies is exemplary. The challenge now is to continue to build the culture of review and transparency by focusing on those areas of financial transaction of highest value and beyond the immediate purview of the district office – namely the BRCs, KGBVs and NGO run programmes. Similarly greater use of public display of financial records in every school would be a no cost means of greatly improving public scrutiny.

Overall the JRM were impressed with what was observed in Bihar. The mission is in agreement that greater focus on the quality agenda is the right direction to go. This is an infinitely more challenging task involving a paradigm shift in thinking - from numbers of inputs (buildings, teachers, textbooks) to a focus on learning outcomes and what factors lead to learning outcome improvements. However, given the progress to date we are sure the SIS and Bihar government will rise to this challenge.