Report on Field Study in Rajasthan State -

Situational Analysis of field conditions with respect to the proposed interventions in Rajasthan state under TATA –MIT Education Initiative.

By

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Glossary

| CALP | Computer Aided Learning Programme |
|--------|--|
| CERP | Centre for Education Research and Practice |
| CSS | Centrally Sponsored Scheme |
| CTEs | College for Teacher Education |
| DFID | Department of Foreign International Development |
| DIETs | District Institute of Education and Trainings |
| DISE | District Information system for Education |
| DPEP | District Primary Education Programme |
| EC | European Commission |
| GER | Gross Enrolment Ratios |
| GOR | Government of Rajasthan |
| IASE | Institute of Advanced Studies in Education |
| ICT | Integrated Computer Technology |
| LJP | Lok Jumbish Project |
| MHRD | Ministry of Human Resources |
| MIT | Massachusetts Institute of Technology |
| NCF | National Curriculum Framework |
| NGOs | Non Government Organizations |
| NPE | National Policy of Education |
| NUEPA. | National University of Education Planning and Administration |
| OBC | Other Backward Classes |
| PS | Primary Schools |
| RMSA | Rashtriya Madhyamik Shiksha Abhiyan |
| RTE | Right to Education |
| SC | Schedule Caste |
| SEMIS | Secondary Education Management Information System |
| SKS | Shiksha Karmi Project |
| SIDA | Swedish International Development Agency |
| SIERT | State Institute of Education Research and Training |
| Sr. | Senior |
| SDTT | Sir Dorabhji Tata Trust |
| SRTT | Sir Ratan Tata Trust |
| SSA | Serve Shiksha Abhiyan |
| ST | Schedule Tribes |
| TOR | Terms of Reference |
| UDISE | Unified-District Institute of Education and Trainings |
| UNICEF | United Nation Children Fund |
| | |

Chapter 1 Context, Objective and Methodology followed for the study

1.1 Context

TATA-MIT group intends to take up digital technology based initiative in the state to improve teaching –learning process at high school level.

In the process of developing an operational plan for the initiative the group has worked out field studies in the states included in the initiative. Rajasthan is one among the states.

Tata-MIT initiative group assigned the task of the field study in Rajasthan to Centre for Education Research and Practice (CERP) organization based in Rajasthan state and working in the school education for quite some time.

The present report is based on the study CERP had taken up in response to the need of the group which was formally documented in the TOR provided to CERP.

1.2 Objectives of the field study

- 1. Overview of ICT related initiatives/activities in the school education in Rajasthan state.
- 2. Prepare an overview of infrastructure present in the schools for the purpose of estimation of additional requirements for the project under consideration.
- 3. Understand government officers readiness and willingness to take up the proposed project
- 4. Identify 4- 5 districts in the state for the intervention and few schools for the purpose of pilot

1.3 Scope of the study

Secondary and Senior Secondary Schools (Maths, Science, English and ICT related activities), ICT related initiative by government, NGOs, Corporate organization in the schools: DIETs, CTEs and IASEs in the state

1.4Methodology

Data for the study was sourced from three sources

(i)Secondary data available on state government websites; Data from UDISE, SEMIS, DISE; Annual Work and Planning Reports of the state education department.

(ii) Personal formal and informal meetings/contact with the persons directly associated with ICT schemes in the schools /NGOs/corporate organization for first hand information and validation for certain facts collected from other sources.

- (iii) Meetings with teachers of five prominent public schools in Rajasthan
- (iv) Visit to one district and three schools for the purpose of the study
- (iv) CERP recent and past experiences of working directly with schools in Rajasthan state.

Chapter 2 Findings 1: Overview of status of school education in the state

2.1 Introduction

Rajasthan is India's largest state in terms of geographical area and as it prides itself on a rich cultural heritage, the people here are known to value long-held beliefs, customs and traditions. It is caste based hierarchical social structure; a high degree of gender inequality; the engagement of a majority of the population in an agrarian economy; inadequate physical and social infrastructure; a high level of poverty; and low literacy and high mortality rate. Rajasthan has one of the highest proportion of schedule caste (SC) and a high proportion of Schedule Tribes (ST) (Table 1)

| | Rajasthan | India |
|---------------------|----------------------|----------------------|
| Area | 3,42,339 Sq.km | 32,87,263 Sq.km |
| Population densely | 200 Person Per Sq.km | 382 Person Per Sq.km |
| Sex Ratio | 928 | 943 |
| %SC population | 17.8 | 16 |
| %ST population | 13.5 | 8 |
| % Muslim population | 8.5 | |
| | | |

Table 1: State Profile

Census 2011

In the overall literacy, Rajasthan state is below the all-India average .However the state has shown remarkable growth in the rate of literacy growth in the last two decades (1991-2011).

| Year | Total Literacy | ^v Rate | Male Literacy Rate | | Female Literacy Rate | |
|------|----------------|-------------------|--------------------|-----------|----------------------|-----------|
| | India | Rajasthan | India | Rajasthan | India | Rajasthan |
| 1991 | 52.21 | 38.55 | 64.13 | 54.37 | 39.29 | 20.44 |
| 2001 | 65.38 | 60.40 | 75.85 | 75.70 | 54.46 | 43.85 |
| 2011 | 74.04 | 67.06 | 82.14 | 80.51 | 65.46 | 52.66 |

Table 2 Decadal Literacy status in Rajasthan

Source -Rajasthan state planning commission

2.2 School Education in the state

Since independence the state has shown consistent improvement in the education outcomes (even though the state is still behind national averages on number of indicators especially on gender equity and transition from elementary to higher classes).

In last two decades the following factors have influenced the school education system in the state to a quite significant level

National Policy of Education 1986 which has set the tone for partnership of union with the state. Through Centrally Sponsored Scheme (CSS) DIETs, CTEs and IASEs were set up in the state to work with teachers. State commitment and federal fiscal transfer to fund elementary and secondary education through CSS (SKS, LJP, DPEP, SSA and RMSA programmes enable rapid scaling up of educational facilities in the state. Strong civil society, NGO activism and support from international funding organization (SIDA, DFID, EC, and UNICEF etc.) have supported in the strengthening school education in the state. Concern of civil societies and NGOs led to the development of innovative programmes (Lok Jumbish Project (LJP) and Shiksha Karmi Project (SKS) to address issues in the education in the state . These programme served as model for the national level programme DPEP of 1990 and Universalisation of Elementary Education Programme ,Serve Shiksha Abhiyan(SSA). On the lines of SSA programme,Rashtriya Madhyamik Shiksha Abhiyan (RMSA) has been initiated in 2010.

| , | | | | | | | |
|-----------------------------------|-------|-----------|--|--|--|--|--|
| Access to Schooling | | | | | | | |
| Indicators | India | Rajasthan | | | | | |
| Retention rate (Class I-V) | 80.07 | 66.78 | | | | | |
| Transition rate PS to UPS | 86.74 | 90.05 | | | | | |
| Transition rate UPS to Sec. | 92.67 | 90.11 | | | | | |
| Transition rate (Sec. to Sr. Sec) | 58.34 | 48.94 | | | | | |
| | | | | | | | |

| Table 3: Status of access to | o schools in | Rajasthan |
|------------------------------|--------------|-----------|
|------------------------------|--------------|-----------|

Census 2011

Out of 100 Students enrolled in class I, only 54 reach secondary and 27 reach in sr. secondary level. Very low transition rate of sec. to sr.sec implies poor access to facilities source (flash statics 2012-13 NUEPA.)

2.2.1 Number of Schools Teachers and Students in the State

Rajasthan state has 1, 36,472 schools to cater school education up to class12th level. Out of these 62.97 percent schools are government and remaining 37.02 percent are private schools. However percentage of students in government and private schools are 52.76 percent and 47.23 respectively. Total 1, 62, 13000 students enrolled in schools run by government and private organizations. (Table4)

| | Type of s | school | | | | | | | |
|-----------------|-----------|--------|--------|--------|---------|---------|------|------|--------|
| | PS. | UPS | Prim | UPS | Prim | UPS | Sec. | Sr. | Total |
| | | | to Sr. | to Sr. | to Sec. | to Sec. | only | Sec. | |
| | | | Sec. | Sec. | | | | with | |
| | | | | | | | | Sec. | |
| Dept of El. | 47389 | 23125 | - | - | - | - | - | - | 70514 |
| Education | | | | | | | | | |
| Dept. of | - | - | 40 | 3331 | 2080 | 6755 | 4 | 1081 | 13291 |
| Sec.Education | | | | | | | | | |
| Dept. of | 731 | 1001 | - | 143 | - | 229 | - | - | 2104 |
| Sanskrit | | | | | | | | | |
| Education | | | | | | | | | |
| Dept. of Tribal | - | - | - | 27 | - | 4 | - | - | 31 |
| and others | | | | | | | | | |
| Other | 7579 | 29356 | 5715 | 654 | 6730 | 297 | 20 | 181 | 50532 |
| Management | | | | | | | | | |
| Total | | | | | | | | | 136472 |

Table 4: Number of schools in Rajasthan

Education Department June 2014

| | Teachers | | Students | | |
|------------------|------------|---------|--------------|---------|--|
| | Sanctioned | Working | Govt | Pvt. | |
| | | | (30.09.2012) | | |
| Unit | In lakh | In lakh | In lakh | In lakh | |
| Primary | 2.64 | 2.38 | 48.66 | 38.03 | |
| UP3 | | | 20.66 | 18.31 | |
| Secondary | 1.40 | 0.91 | 10.89 | 12.10 | |
| Senior Secondary | | | 5.33 | 8.15 | |
| Total | 4.04 | 3.29 | 85.54 | 76.59 | |

Table 5: Number of Teachers and students (Ele. and Secondary)

Source Additional Chief Secretary, GOR presentation on 11th June 2014

The state has three lakh twenty nine thousand teachers working in the government schools. Still 75 thousand sectioned posts of teachers are vacant in the school education. In the secondary education around fifty one thousand posts are vacant as on 31st May2014.

|--|

| Teacher/HM | Sr. Secondary | | | Secondary | | |
|------------------|---------------|----------|---------|-----------|----------|---------|
| | Required | Existing | Vacancy | Required | Existing | Vacancy |
| Principle / HM | 4455 | 2705 | 1750 | 9442 | 7607 | 1835 |
| Maths | 737 | 236 | 501 | 14111 | 9899 | 4212 |
| Science | 3447 | 1795 | 1652 | 13570 | 10505 | 3065 |
| English | 4452 | 2015 | 2437 | 13213 | 9722 | 3491 |
| Others | 23537 | 10512 | 13025 | 26722 | 18424 | 8298 |
| Total Sub Tables | 32173 | 14538 | 17615 | 67616 | 48550 | 19066 |

Additional Chief Secretary, GOR presentation on 11th June 2014

| | Table 7: Caste and | Gender wise | teachers in | the | Secondary | schools |
|--|--------------------|-------------|-------------|-----|-----------|---------|
|--|--------------------|-------------|-------------|-----|-----------|---------|

| Type of | Total | | SC | | ST | | OBC | |
|----------|------------|---------|---------|--------|--------|--------|---------|--------|
| teacher | М | F | М | F | М | F | М | F |
| Regular | 23717 | 6856 | 3688 | 662 | 2853 | 494 | 8667 | 1902 |
| Teacher | (77.43 | (22.57) | (12.14) | (2.18) | (9.39) | (1.63) | (28.54) | (6.26) |
| | percent of | | | | | | | |
| | total) | | | | | | | |
| Contract | 655 | 147 | 131 | 15 | 46 | 3 | 625 | 49 |
| Teacher | (81.67) | (18.33) | (16.33) | (1.87) | (5.46) | (0.37) | (33.04) | (6.11) |

Source UDISE 12-13

2.2.2 Retention and Transition Rate

In the state one out of 100 Students enrolled in class I, only 54 reach Sec. and 27 reach in sr. secondary level. Very low transition rate of Secondary to Sr. Sec Schools implies poor access to facilities in the

90.11

48.94

| Access to Schooling | | | | | | |
|----------------------------|-------|-----------|--|--|--|--|
| Indicators | India | Rajasthan | | | | |
| Retention rate (Class I-V) | 80.07 | 66.78 | | | | |
| Transition rate PS to UPS | 86.74 | 90.05 | | | | |

92.67

58.34

Table 8: Retention and Transition Rate in Rajasthan

State Report Card 2013

Transition rate UPS to Sec.

Transition rate (Sec. to Sr. Sec)

2.2.3 Other indicators to reflect status of education in the state Table 9: Gender parity

| Indictor | India | Rajasthan |
|-----------------------------|-------|-----------|
| Gender parity PS | 0.94 | 0.88 |
| Gender parity UPS | 0.95 | 0.81 |
| Gender parity Secondary | 0.89 | 0.70 |
| Gender parity Sr. Secondary | 0.87 | 0.63 |

Flash Statistics 2012-13 NUEPA (Girls Education)

Table 10: Caste and girls enrolment in Rajasthan

| | PS | | UPS | | Secondary | |
|--------|------------|--------------|------------|--------------|------------|--------------|
| | % | %Girls | % | %Girls | % | %Girls |
| | enrollment | enrollment | enrollment | enrollment | enrollment | enrollment |
| | | within caste | | within caste | | within caste |
| SC | 20.6 | 47.0 | 19.5 | 45.0 | 17.94 | 40.75 |
| ST | 16.0 | 46.8 | 13.6 | 44.0 | 13.55 | 42.80 |
| OBC | 48.2 | 47.2 | 48.2 | 48.2 | 49.00 | 40.17 |
| Muslim | 9.2 | 46.8 | 6.8 | 44.5 | 4.81 | 36.93 |

Box 1

The Gross Enrolment Ratios (GER) along the educational continuum highlights both gender as well as social gaps quite clearly. As we move from primary (classes 1-5) to higher education, there is significant gender and social gap and high dropout rates at each successive level. The census data of 2010-11 indicates a sharp GER drop for girls, i.e. 14.9 at higher education level. The lowest higher education GER is SC girls at 8.9 followed by ST Girls at 10.3. This is not surprising picture because the share of student enrolment in higher education across all marginalized groups in Rajasthan is less than their proportionate share in the population, which is indicative of continued persistence of educational backwardness among these communities

| Type of schools | % of schools with computers |
|-------------------------------|---------------------------------------|
| Table 11 Percentage schools | with computer facilities in the state |
| 2.2.4 Availability of compute | rs in the schools |

| Type of schools | % of schools with computers |
|-----------------|-----------------------------|
| Sr. Secondary | 60.08 |
| Secondary | 51.88 |
| Upper Primary | 38.79 |
| Primary | 4.57 |

Out of 13291 schools in the secondary setup around 6500 schools have got computers under MHRD ICT school scheme. In the upper primary schools 38 percent schools has got computers under Computer Aided Learning Programme (CALP).

2.2.5 Children Achievement in the State Board Exams

Result of class 10 board exam of year 2014 is compiled in the table 6. Overall pass percentage is 66.34 percent and there is hardly any difference in the performance of boys and girls. Among who have passed approximately 50 percent are in the IInd division bracket in both boys and girls categories. Only 16percent boys and girls managed to get Ist division and rest 15 percent have got III rd division. (Tab.12)

| Student | Appeared in | Passed | Passed | | | | | |
|---------|-------------|--------------|---------------|----------------|-------|--|--|--|
| | class 10 | Ist Division | IInd Division | IIIrd Division | | | | |
| | Board Exam | (% students) | (% students) | (% students) | | | | |
| Boys | 654391 | 16.65 | 34.09 | 15.73 | 66.53 | | | |
| Girls | 452340 | 16.25 | 35.20 | 14.55 | 65.12 | | | |
| Total | 1106731 | 16.49 | 35.54 | 15.25 | 66.34 | | | |

Table 12: Result of Board Exam of class10 (Secondary) Year 2014

Source-Board of Secondary Education

| Appeared In 2013 | Boys | 700965 | | Passe | d | Boys | | | 449254(64 percent) | |
|---------------------|-------|--------|----------|---------|-----------|----------------------|---------|--------|------------------------|---------|
| Exam | Girls | 47453 | 0 | | | Girls | | | 309051 (65percent) | |
| | Total | 11754 | 95 | | | Total | | 7 (| 738305 (64 percent) | |
| | | Cons | olidated | l Resul | t Class 1 | 2 th 201 | 4 scien | ce | | |
| STUDENT | APPE | ARED | ΙD |)iv. | II D | iv. | II | I Div. | | Гotal |
| Boys | 133 | 146 | 600 |)45 | 4395 | 51 3 | | 393 | 1 | 05104 |
| | | | (45.0 |)9 %) | (33.00 |) %) | (0. | 29 %) | (7 | 8.93 %) |
| Girls | 422 | 238 | 262 | 288 | 9634 | | | 24 | | 35996 |
| | | | (62.2 | 23 %) | (22.80 | 0%) | (0. | 05 %) | (8 | 5.22 %) |
| Total | 175 | 384 | 863 | 333 | 53585 | | | 417 | 1 | 41100 |
| | | | (49.2 | 2 %) | (30.55 | o %) | (0. | 23 %) | (80 |).45 %) |
| | | C | onsolic | lated R | esult Cla | uss 10 th | 2014 | | | |
| STUDENT | APPE | ARED |] | [| II | | | III | | Гotal |
| Boys | 652 | 675 | 108 | 978 | 2230 | 37 | 1(|)2930 | 4 | 35246 |
| | | | (16.6 | 9 %) | (34.17 | ′ %) | (15 | .77 %) | (60 | 5.68 %) |
| Girls | 451 | 651 | 735 | 527 | 1591 | 82 | 6 | 5813 | 2 | 98730 |
| | | | (16.2 | 7 %) | (35.24 | - %) | (14 | .57 %) | (60 | 5.14 %) |
| Total | 1104 | 326 | 182 | 505 | 3822 | 19 | 10 | 68743 | 7 | 33976 |
| | | | (16.5 | 2 %) | (34.61 | %) | (15 | .28 %) | (60 | 5.46 %) |

Table 13: Student performance in the state Board Exams

2.2.6 Student's choice of stream after class10

After class10, 64 percent students opted for Arts subjects, 25percent Science stream and 10 percent for commerce subjects. (Table.14). In the schools there is a shortage of science teachers and in small towns limited schools offer choice of science subjects9interiew with an education administrator

2.2.7 State expenditure on school education in the state

Table15 consist figures of total expenditure of state on elementary and secondary education in the last three consecutive years. Every year there has been substantial increase in the expenditure while number of student in year 2010-11 and 2011-12 is almost same and there is over 6 percent decrease in number in year 2012-13. In year 2012-13 average expenditure per child in the elementary section was Rs 13thousand and in the secondary section was 17 thousand seven hundred rupees. Percentage of total expenditure (within same category) is almost same on 2000-01 and 2013-14. (Table15)

| Managemen t | State Gov | renment | | Other ma | Other management | | | Total | | |
|--|------------------------------------|---------|----------|-----------------------------|----------------------------|-------------------|------------------|------------------|---------|--|
| | В | G | Т | В | G | Т | В | G | Т | |
| Class9 | 344730 | 318557 | 663287 | 352238 | 200563 | 552801 | 696968 | 519120 | 1216088 | |
| Class10 | 246587 | 238202 | 484786 | 429577 | 233098 | 662675 | 676164 | 471300 | 114746 | |
| Class12 | 138979 | 102788 | 241767 | 294334 | 158659 | 452993 | 433313 | 261447 | 694760 | |
| Choice of stream in Class12 | | | | | | | | | | |
| Appeared in all Streams (100 percent) | Appeared in Arts stream App Com | | | ppeared in ommerce strez | peared in Annerce stream S | | Maths | Biology | | |
| 694760 (100) | 442465 (63.68) | | 69 (9 |)415 .99) | | 174000 (25.04) | 99984 (57.46) | 75177 (43.20) | | |

Table 14: Enrolment in class 9, 10 and 12th and choice of stream in class12

Table 15 Rajasthan state expenditures per student / per annum

| Year | Ele | mentary Educ | cation | Secondary Education | | | |
|---------|----------|------------------------------|----------------------|---------------------|------------------------------|----------------------|--|
| | Exp. Cr. | No. of Students (lakh) | Exp. Per Students | Exp. Cr. | No. of Students (lakh) | Exp. per Students | |
| 2010-11 | 5850.60 | 59.04 | 9908 | 3435.40 | 22.32 | 15391 | |
| 2011-12 | 6689.97 | 59.48 | 11247 | 3937.70 | 24.95 | 15782 | |
| 2012-13 | 7427.36 | 56.86 | 13.058 | 4497.61 | 25.38 | 17721 | |

Source Additional Chief Secretary, GOR presentation on 11th June 2014

Table 16 Distribution of expenditure in Rajasthan on Education by Levels%

| Section | 2013-14 ¹ |
|------------|----------------------|
| Elementary | 57.3 |
| Secondary | 33.3 |
| | |

Source:www.rajshiksh.gov.in

¹ State government presentation 11th June 2014

2.3 Structure of Educational Administration of Education Department in Rajasthan.

The state has three directorates for administration and management of school education in the state. These are Directorate of Elementary Education, the Directorate of Secondary Education and the directorate of Sanskrit Education. Education of children from classes 1 to 8 comes in the preview of the Elementary Education and education of children from classes 9 to 12 are in the preview of Secondary Education. Principal Secretary School Education is the controlling authority for both the department. Education Directorates (Both Elementary and Secondary) are situated in Bikaner a divisional HQ in the state. Both departments have separate cadre of teachers, officers and their head of departments are designated as Commissioner, Elementary Education and Commissioner (Secondary Education). In between both departments deputations of teachers and officers are possible on fulfilling certain conditions.

The third directorate in the school education is the directorate of Sanskrit Education. It was set up in 1958 with an objective to support and encourage Sanskrit education in the state. There are separate set of schools imparting education from classes 1 to 12 and besides this the department also control selected colleges of graduate and post graduate level which run courses of Sanskrit subject and courses in Sanskrit language.

The schools falling under all three directorates follow the same curriculum prescribed by the State Institute of Education Research and Training (SIERT). Tribal department in the state also run 31 schools from UPS to Secondary /Sr. Secondary level in the tribal areas but it has no separate cadre of teachers. All teachers working in the schools run by tribal department are from deputation from the departments of elementary and secondary education.

In addition to the categories of schools mentioned above, the state also has large number of schools run by missionaries, trusts and private organizations. All these schools are recognized by the education department for that they required to fulfil certain requirement related to physical and human infrastructure.

After enactment of RTE Act (2010) in Rajasthan all elementary level schools are in the preview of RTE rules. On 2nd Oct 2010, all schools up to class 8 are handed over to the Panchayat Raj Department. However its parent department remains department of elementary education in the state.Following organization chart represents elementary education set up in the state.



Fig 1: Structure of Educational Administration of Department of Elementary Education in Rajasthan



Fig 2: Structure of Educational Administration of Department of Secondary Education in Rajasthan

Chapter 3 Findings 2: Overview of ICT related initiatives/activities in the State Schools Education

3.1 State policy on ICT in schools

The state has evolved well defined policy on ICT in the school which is inspired by NPE1986,NCF 2005 and CABE report on Universal Secondary Education 2005.

Main objective of the ICT policy of the state is State of art ICT and ICT enabled tools to all teachers and students; Development of local quality content for teachers and students; Development of professional network of teachers, resource persons and schools. The state has envisaged following three steps in the implementations of ICT Policy at the school level –

ICT literacy and Competency Enhancement

ICT enabled teaching - learning and

Introduction of ICT related elective subjects in schools

3.2 ICT in government schools of Rajasthan

3. 2.1 ICT School Scheme of MHRD in Rajasthan

3.2.1.1 About the scheme and its provisions

In the secondary and sr. secondary schools of government of Rajasthan the first exposure related to ICT to teachers and student was through the MHRD scheme of ICT in the school. The scheme was initiated in 2008 and 2500 schools were covered across the state. In this phase mostly sr. secondary schools (with secondary classes) were covered in the state. The second phase for covering 2000 more schools (both secondary and sr. secondary) was supposed to be started in 2010 and it delayed due to delay in the release of funds from the centre government. The second phase was started in April 2013. In the third phase which took off in Feb.2014, 2000 more schools have been covered in the scheme. In the next two years government intend to cover remaining 50 percent schools in the MHRD ICT school scheme.

In the process of implementation the state hired services of the private service provider. Through tender process contract was awarded to the lowest bidder. In the state for 80 percent schools contracts have been awarded to CompuCom computers Private Limited. The other organizations-Educom, Pearson, IL&FS are providing services in the rest of 20 percent schools. When the scheme was initiated the budget allotted to per school was 6.7 lakh and it has now increased to 9.10 lakh/school.75 percent of the total budget is shared by the centre government and rest 25 percent budget is contributed by the state.

In each school the service provider has provided following infrastructure 10computers(1mainserver+9nodes),1Printer,1Scanner,1Projector,2UPS,1Webcam,1Wireless router,1Wireless adapter LAN1,10 Computer tables , 20 Chairs,1 Generator 3KV.

In each school service provider has trained 2 teachers on basics of the computers. To meet the conditions mentioned in the tender document, the service provider is supporting one computer instructor in all schools and for that they have kept budget of rupees 1800 per month. Based on the feedback from schools regarding difficulty in getting computer trained person at the rate of 1800 per

month the government compelled the service provider to modify the scheme and on one cluster of five schools one instructor is places and he /she is supposed cover all 5 schools in one week.

3.2.1.2 Ground level realities

2500 schools (schools covered in MHRD ICT Scheme) which were included in the first phase in 2008 have one phase of five years .However teachers and student of these schools are still in the preliminary phase of learning computers. At state level also no efforts have been done to go beyond it. At state level there is no vision or plan to enable schools/teachers so that they can aai; benefit ICT could offer in making teaching learning effective.

When the matter was discussed with HMs and officials associated with the ICT in the directorate they are of opinion that the state require technical support to strengthen ICT school programme in the state.

There are other issues like poor monitoring, training, handholding support infrastructure provided to the schools have become junk, large number of schools have report computer theft of computer from the schools. Poor maintenance of computers and other infrastructure is one of the other issues effecting ICT school scheme in the schools

3.2.2Earnet India initiative in 247 rural schools of Ajmer district

3.2.2 1 About the initiative

Earnet India is a National Research and Education network set up in 1998 as autonomous society by the Dept. of Electronics and Information Technology. Its objective is to set up a state of art ICT infrastructure in schools for linkage of the region with rest of the country through good telecom and internet services. The scheme was initiated from MP fund by Mr.Sachin Pilot and now at the stage to transfer to the state government.

3.2.2.2 Ground Level Realities

Since the launch of the scheme, it never claimed that the scheme would bring advantage that ICT offer in the teaching learning process to the class rooms/teachers and children. Now scheme is in the roll out phase.

When enquired about the scheme, Principal of one government school in Ajmer reveal that most of computers come installed under the scheme have been taken up by the officers of various department and fulfilling their office requirements.

3.2.2 Other initiatives in government schools

3.2.2.1 About the scheme/programme

Under SSA programme, Computer Aided Learning Programme (CALP) was started long back and various internationally reputed companies join the hand with state government to support the programme (Microsoft, Cisco, Intel, Azim Premji Foundations had signed MOU with the SSA). Microsoft had set up an Academy within the premises of SSA Rajasthan. It is still there and undertaking basic computer literacy trainings for teachers of Elementary set up

3.2.3.2 Present Status of ICT initiatives in SSA Programme

It is indeed unfortunate to comment on the status of ICT scheme in schools (Under SSA programme) in 90 percent schools computers are present in schools in unusable conditions. Beside some CDs which SSA received as charity and supplied to the schools, SSA never took this opportunity and explore potential it offer in teachers training and classroom processes.

3.2.4 ICT in private schools

Slowly the concept of smart class is catching up with large prestigious schools in the state'

HCL learning, Teach Next, Educom India are among the few companies which are providing infrastructure and e-content to the schools on contract basis. Overall objective is to make classroom process more interactive and easy to learn. They have not made any attempt to use ICT to enable teacher and students to learn by their own. The initiative is limited to few large schools which cater to high class /high middle class only.

Chapter 4 Findings 3: Overview of infrastructure present in the schools for the purpose of estimation of additional requirements for the project under consideration.

4.1 Physical infrastructure in schools to support ICT related initiatives

In Rajasthan state more than 95 percent schools are in its own building. Now RMSA programme is facilitating improvement of schools buildings in the state. In next two years large number of schools will get additional rooms besides renovation work of existing buildings in the schools. Over 88 percent high schools have electric connection.

Internet and computers are available in only those schools which are covered under MHRD's ICT in school scheme. Computers and other related items are in functional state only in 20 percent schools (need verification)

Most of the schools have no TLM /No trainings(in real terms) for teachers in last 5 to 6 years and there is no any other support system to hand hold on issues related to use of computer and other subjects.

Under Rajiv Gandhi Digital Scheme the state had made provision for Laptops to meritorious students of class8, 10 and 12. The scheme was initiated by the congress party government (2008-13) .In the state budget of 2014-15 which was presented in the state on 14th July 2014 the new government has declared to close the scheme with immediate effect.

4.2Teacher related information

Availability of teachers in the schools

Overall there is a shortage of teachers in the government schools throughout the state.

Out of total sanctioned posts of 69381 of teacher grade II (High School teachers), 19637 posts are vacant (30th April2014).In Science, Maths and English subject almost one third posts are vacant. The process of recruitment is on and the state has reiterated its commitment to appoint teachers in the state.

Teacher's qualification

State follow NCTE norms in the recruitment and all teachers teaching at high schools are qualified.

Pre-service and in-service trainings and other support structure

The state has 778 B.Ed colleges and only 5 are managed by the government; Under Central sponsored Scheme the state has 2 IASEs and & 5 CTEs

Quality of training is a matter of serious concern.

In-service trainings: The state has not worked out any perspective and vision for the training of teachers in the state. Through CTEs (total 5 CTEs) only quite a few get the facility. RMSA has started trainings of teachers but it has limited academic resources. Otherwise there is no handholding/support structure.

Classroom Practices in majority of Schools: Across the state classroom processes are based on rote learning approach. Classroom processes and evaluation system reinforce rote learning in the student. Hardly there is any scope for hand on experience of students in the classrooms.

Chapter 5 Findings 4: Government officer's readiness and willingness to take up the proposed project

Preparedness and willingness of authorities to take up new initiatives

In Rajasthan, as elsewhere in the country, the focus and thrust on strengthening secondary school sector is fairly recent. Nevertheless, in interaction with authorities one can easily realize that they are short of new ideas, academic resources and support to strengthen their programmes. In core subjects like Science, Maths and English there is no competent resource which can provide them support in improving their academic programme. At present RMSA associate CTEs and IASE for the trainings of the Resource Persons. However capacities in CTEs and IASEs are doubtful.

In our interaction with the authorities for the purpose of the present field study or earlier on various occasions related to the studies CERP undertook in the education it is being realized that at the moment there is openness and desire in the state to associate with those who can in real term provide support to improve status of school education in the state.

In general the state has declared PPP (public private part ships) friendly policy for the projects in the state.

Chapter 6 Recommendations 1: 4- 5 Districts in the state for the intervention

Based on the analysis of information collected for the purpose of the field study and earlier experience of working of CERP with the schools and education system, our recommendations for the selection of 3 / 4 districts for the proposed intervention are as follows

| SN | Names of recommended districts | Broad criteria for the selection | Advantage of selection over other districts |
|----|--------------------------------------|---|--|
| 1 | Ajmer | (i)HQ of Rajasthan Board of Secondary Education. | Liaisoning with Rajasthan board of Secondary Education will facilitate dissemination of ICT related practices in the wider areas ; modifying evaluation practices in the schools and introduction of ICT enabled evaluation processes in the schools. Already nearly 50 percent schools have been part of the MHRD ICT scheme state has initiated in the schools; rest 50 percent will also be included in next 2 to 3 years. |
| | | (ii)Out of 2 IASE in the state one is in Ajmer. | Faculty and their training programme could be a good platform to reach to teachers. It will be win win proposition for both IASE and Tata –MIT initiative group. |
| | | (iii)Regional college of Education of NCERT | Increase possibilities of collaboration of REI and Tata MIT |
| | | (iv)Educationally advanced district; number of well reputed schools like Mayo college, Sofia school, St. Anselm's school. | At later stage the initiative may include private schools in the intervention. Presence in the district would make easy access. |
| | | (v) Pioneer in implementing innovative education projects in the state. | Schools/teachers and administration is well versed with overall culture of innovative programmes, after number of initiatives in the elementary education they are looking for some academic support programme in the |

| | | | secondary education. |
|----|---------|--|---|
| | | (vi) Presence of SDTT in one block(Pisangan) | Aware of geography, socio-economic and education profile of the area. If required reach to local NGOs would |
| | | (vii) Presence of SRTT (two blocks-Jawaja and Silora) | be easy. |
| | | (viii) ICT Lab of SIERT is situated in Ajmer) | Possibilities of association could be explored association could result in synergy in output both agebcies |
| 2 | Jaipur | (i)State capital-Office of RMSA/SSA/ regional centre of Rajasthan Education Board. | Liaisoning for integration of good practices in field in the state activities. |
| | | (ii) Presence of reputed NGOs/corporate organization working in school education like BODH, DIGANTER,SANDHAN, Azim Premji Foundation, Save the Children, UNICEF,CERP etc. | Possibilities of association could be explored it Tata MIT group realize value addition in their existing plan of intervention. |
| | | (iii) Out of 5 CTEs one is in Jaipur | Association with CTE could be good platform to reach to teachers of secondary schools. |
| 3. | Bikaner | (i).Presence of Directorate of Elementary Education and Directorate of Secondary education | Liaisoning with educational administrators could help in easy execution of the proposed activities. |
| | | (ii) Presence of IASE | Could help in increase outreach to the teachers; additional opportunities to interact with teachers. |
| 4. | Udaipur | (i). SIERT of Rajasthan state is based in Udaipur. | Tata - MIT association with SIERT will enhance capacity building of SIERT. Eventually SIERT may imbibe the learning's into the state activities. |
| | | ii). UNICEF Rajasthan is doing one project on school education in association with DIET of Udaipur | Possibilities of association with DIET could be explored. |
| | | (iii) Presence of Vidaya Bhawan Society and its B,Ed | VIdya Bhawan's experience of working with teachers and its CTE could be |

| | | college | useful in the implementation of the |
|---|---------------|-----------------------------------|--------------------------------------|
| | | | programme. |
| 5 | Serohi (Block | SRTT has presence in Abu- | Tata-MIT initiative in secondary |
| | Abu Road) | Road block of Serohi and now | schools could be linked with the |
| | | they are planning to take work | proposed work at the UPS level. The |
| | | in education. SRTT is | proposed proposition would create |
| | | exploring possibilities to taking | academic atmosphere in the schools |
| | | up intervention at upper | and result in better output. |
| | | primary level in the selected | DIET of Serohi district located Abu- |
| | | schools of Abu-Road block | Road Block at MT Abu, possibilities |
| | | which will have focus on | could be explored to work with them |
| | | Science, Maths and languages | otherwise also overall education |
| | | especially English subject. | environment is congenial. |

Note: For the selection of districts for the recommendation - ICT facilities present in the schools, overall infrastructure of schools (physical and human), prior results of classes 10th and 12th, status of DIETs etc. were not formed the basis of selection . With respect to these parameter we found more or less the same situation across the state (described in the report) and there is hardly any significant variations. Hence, the selection is based on the aforementioned criteria.

Recommendations 2: 3 Schools for the purpose of mini pilot/pilot

| SN | Names of recommended Schools | Broad criteria for the selection |
|----|------------------------------------|---|
| 1 | Government Senior | (i). School should be High School |
| | Secondary School | (ii) It should be Hindi Medium School |
| | Top Dara Ajmer | (iii) Some ICT infrastructure and teacher awareness about |
| 2 | 2. Jawahar Senior | ICTS |
| | school Civil Lines | (iv)At least one Maths, Science and English teacher |
| | Ajmer | ,preferably two available |
| | , | (v)Head Master / Principal should be willing to give teachers |
| | | time to discuss the plan as well as execute the plan in the |
| 2 | Government Sr. | class. |
| | Secondary School | (vi) Should be representative of Urban /rural schools in the |
| | Tilora (near | Rajasthan. |
| | Pushkar | , |

Table 18: Recommendations of schools for Pilot/Mini Pilot

Dates for Mini Pilot: Discussed two sets of dates with the heads of the institutions (5th -9th August and 12th to 16th August 2014. First slot i.e. 5th-9th August 2014 is possible. For permission we have to write to DEO (Secondary) Ajmer and we will get the permission.

(Note Ajmer is 120 KM from Jaipur and connected by express highway)