A Study of Women Teachers and Achievment of Gender and Equity Goals in Secondary Education

Women teachers and the achievement of gender and equity goals in secondary education:
An exploratory study in Rajasthan

(Supported by MacArthur Foundation)

ERU Consultants Pvt ltd
2014

Researchers and authors
Kameshwari Jandhyala
Nishi Mehrotra,
Niti Saxena
Rajni Patni
RS Sharma
Sapna Goel
Shobhita Rajagopal
UK Ojha

Advisors
Bharat Patni
Vimala Ramachandran

Editor
Prerna Goel Chatterjee

Table of Contents

Annexures

Index of Tables, Charts and Boxes

Acknowledgements

Glossary

AISHE	All India Survey of Higher Education
ADPC	Additional District Project Co-ordinators
AWC	Aanganwadi Centre
B.Ed	Bachelor of Education (Undergraduate degree in education)
B.Tech.	Bachelor of Technology
BPL	Below Poverty Line
BSS	Balika Shiksha Shivir (Residential accelerated learning centre for girls)
BSTC	Basic School Teacher Certificate
CABE	Central Advisory Board on Education
CEHAT	Centre for Enquiry into Health and Allied Themes
Co-Ed	Co-educational
CORO	Committee of Resource Organizations
CTE	Council for Teacher Education
DD	Doosra Dashak
DEO	District Education Official
DIET	District Institute for Education Training
DPEP	District Primary Education Programme
EBB	Educationally Backward Block
EBM	Educational Backward Minorities
FDR	Fixed Deposit Receipts
FGDs	Focus Group Discussions
GEMS	Gender Equality Movement in Schools
GER	Gross Enrolment Ratio
GIDS	Gujarat Institute of Development Studies
GoI	Government of India
GoR	Government of Rajasthan
GPI	Gender Parity Index
HDR	Human Development Report
HM	Head Master/Mistress of a school
IASE	Institute of Advance Studies in Education
ICDS	Integrated Child Development Services
ICRW	The International Centre for Research on Women
ICT	Information Communication Technology
IEC	Internal Ethics Committee
IGNOU	Indira Gandhi National Open University
ISRO	Indian Space Research Organization
IT	Information Technology
KGBV	Kasturba Gandhi Balika Vidyalaya (Residential school for girls from classes 6 to 8)
MA	Masters in Arts
M.Ed	Masters in Education
MBA	Masters in Business Administration
MDG	Millennium Development Goals
MHRD	Ministry of Human Resource Development
MSKs	Mahila Shikshan Kendras (Residential accelerated learning centre for girls and women)
NAAC	National Academic Accreditation Council
NCERT	National Council for Education Research and Training

NCPCR	National Council for Protection of Child Rights
NCTE	National Council for Teacher Education
NGOs	Non Governmental Organisations
NPE	New Education Policy
NSSO	National Sample Survey
NUEPA	National University of Education Planning and Administration
OBC	Other Backward Castes
PG	Post Graduate
PS	Primary School
PTET	Pre Teacher Education Test. (This is the qualifying exam to join a Bachelor in Education course)
RAC	Research Advisory Committee
RMSA	Rashtriya Madhyamik Shiksha Abhiyan (Mission for Secondary Education)
RPSC	Rajasthan Provincial Service Commission
RTE	Right to Education
RTET	Rajasthan Teacher Eligibility Test
SC	Scheduled Caste
SCERT	State Council for Education Research and Training
SES	Select Education Statistics
SIERT	State Institute of Education Research and Training
SOP	Standard Operating Procedures
SSA	Sarva Shiksha Abhiyan (Mission for Universal Elementary Education)
ST	Scheduled Tribe
TET	Teacher Eligibility Test
TISS	Tata Institute of Social Sciences
TSG	Technical Support Group
UEE	Universal Elementary Education
UG	Under Graduate
UPS	Upper Primary School

Executive Summary

Introduction

The issue of universalising secondary education and elimination of gender and social disparities in primary and secondary education in India is central to much of educational policy and programme formulation. However, ensuring gender and social equity in secondary education is a huge challenge and it is believed that the presence of women teachers could make a difference at the secondary level. In this context, this study explores the role of women teachers at secondary level and examines their significance in achieving the national goals of gender and equity in secondary education, with a special focus on the state of Rajasthan.

Main criteria for selecting sample districts were areas with high concentration of Scheduled Caste (SC), Scheduled Tribes (ST) and Muslim population; urban and rural representation; presence of teacher training institutions; and percentage of women teachers at secondary level (higher than state average, closer to state average, lower than state average). Another key area that this study explored was access of girls to science education. Since the study was centred on women teachers, additional criteria such as opportunities for teacher training as well as the status of women teachers at the secondary level in the district were also included.

Based on the above criteria, three districts were selected - Baran (backward, high ST population of 27.3%); Barmer (geographical and developmental disadvantage and high SC population of 16.8%); and Ajmer (high urban Muslim population of 11.2%). The percentage of women teachers in 3 sample districts in 2011-12 was 37% in Ajmer, 16% in Baran and 8% in Barmer, as against 19% in Rajasthan. The study covered a sample of 6 blocks across 3 districts, in which 6 secondary/ higher secondary schools (4 girls only), 6 government and private undergraduate colleges (3 girls' only), and 6 government and private B.Ed. colleges (1 girls only) were taken up.

Status along the educational continuum in Rajasthan

The Gross Enrolment Ratios (GER) along the educational continuum, nationally as well as in Rajasthan, highlight 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. 2010-11 data indicates a sharp GER drop for girls, i.e. 14.9 at higher education level. The lowest higher education GER is for SC girls at 8.9 followed by ST Girls at 10.3. This is not a 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.

Data from the field visits also confirms educational backwardness. The sharpest slide seems to be after completion of secondary and before higher secondary and higher education. This is true for girls in general and across marginalized social groups such as SCs and STs. These disparities are reflected not only in enrolment but also at the faculty and staff levels. In Rajasthan, compared to males, women are considerably under represented among faculty and staff at both secondary and at higher education institutions and this deficit is higher for all marginalized social groups.

Access to secondary and higher secondary education

In Rajasthan, as elsewhere in the country, the focus and thrust on strengthening secondary school sector is fairly recent. However, unlike other states in the country, Rajasthan has only two types of schools - those

run by government and those under private management receiving no government aid or grants. It is also important to note that in Rajasthan the government remains a significant provider of secondary and higher secondary education. For example, in 2010-11 51.81% of secondary schools and 37.16% higher secondary schools were government schools1.

Access remains a major challenge in some difficult areas/ districts such as Barmer where the distribution of schools is mostly in urban and peri-urban areas. Uneven distribution with concentration in just 7 districts (Sikar, Kota, Ajmer, Dausa, Sriganganagar, Jaipur and Jhunjhunu) and mostly in urban and peri-urban areas exacerbates limited access for poor and marginalised girls in particular. The situation was same in the sample districts as well. Similarly, strong conservative cultural traditions are important in determining access. In Ajmer, for instance, access to secondary school was restricted for Muslim girls because the school was located just beyond the defined boundaries of the Muslim neighbourhood.

In Rajasthan, by and large, higher secondary schools are known as boys' schools (the term boys schools is used for co-ed schools) with only a small number of girls' only schools. In 2011-12, for instance, there were only 557 girls' only secondary schools against 15150 for boys in the state. At higher secondary level, there are 779 girls' only schools against 7741 boys schools. In the sample districts, the figures are even more skewed with girls' only secondary schools being as few as 5 in Barmer district (largest in area). Further, in "boys' school" girls are admitted either if a girls' only higher secondary school is not accessible or girls want to pursue specific subjects such as science/ math, which are offered only in boys' schools.

Access to Higher Education
Just like secondary and higher seconadry education, enrolment trends at the collegiate level hold no surprises. The participation from SC, ST and Muslim communities is very negligible and social hierarchies are reflected in the pattern of enrolment with more students from general and OBC communities pursuing higher education as compared to those from marginalized communities, especially girls.

Access to Pre-service Teacher Education in Rajasthan
Teacher education and training in Rajasthan is provided mostly by the private sector with the government running a very small number of colleges. Currently there are 778 teacher-training colleges in the state out of which 5 are government managed colleges. One-third of these colleges are exclusively for girls. The remaining, which are co-education colleges, have a prescribed ratio of 70:30 for male is to female students. The spatial distribution follows the pattern of higher education with a concentration of B.Ed colleges in just 10 districts and majority of students are admitted into the arts / language streams and only 20 per cent are admitted into the science stream.

Status of Women teachers at secondary level in sample districts
The availability of women teachers at secondary level remains an important area of concern in Rajasthan. Shortage of teachers, in general, is due to the lack of a clear policy on time bound recruitments and delays in recruitment as a result of pending cases challenging the recruitment process. Moreover, even when teachers are recruited, fewer women get selected despite the fact that there are no procedural or legal hurdles in appointing women. Further, considerably less number of women teachers available for science and maths. The deployment pattern shows that the presence of women teachers is much better in urban areas. In the sample districts, except for Ajmer, which has a significantly higher percentage or proportion of women teachers, the situation in backward districts such as Barmer and Baran is rather poor.

---

[1] Government of Rajasthan (2011-12) *Shiksha ki Pragati* (Progress of Education in Rajasthan), Directorate of Secondary Education, Bikaner

Simiarly, presence of SC and ST women teachers at secondary and higher secondary level is strikingly low. It may be pertinent to point out here that the low representation of SC and ST women teachers is mirrored in the case of SC and ST men as well. As one moves onto the collegiate level, gender and social deficit among the faculty level gets more accentuated. Across 7 under graduate colleges surveyed in 3 districts, irrespective whether a college was a co-ed or girls' only college, there were more men than women faculty, except in urban girls' college where obviously there are more women than men.

The pattern of very low representation of SC and ST community and the absence of any SC/ST women (except for 1 SC woman in Ajmer) was sharply evident in the 7 B.Ed. colleges surveyed. Given the low presence of women, it is not surprising that gender imbalance and disparities are reflected in the leadership roles, as principals of schools and within educational administration. For example, in girls' schools, there were obviously women principals but in case of boys schools, even though there were women teachers in the lower categories of 3rd grade, senior teacher and lecturer, but not a single woman was found to be in the position of a principal.

Is becoming a secondary school teacher a preferred choice?
Teaching career was not a popular choice among the teachers who were interviewed. For those who became teachers by default or whose first choice was not teaching, the preferred option was to join the state civil service. Most women chose this career as they felt they could combine family responsibility with employment. Families also actively support teaching as a career option for women especially after marriage. However, one needs to be cautious in applauding this apparent shift in societal attitudes towards women and employment. Growing aspirations for changes in lifestyles require a second income and therefore, families are now allowing their women to work as long as it is within the patriarchal framework where responsibility towards family predominates a woman's life. And this balance can be easily maintained if she becomes a schoolteacher.

Is there a feminization of subject /stream specialisations?
One of the key issues explored in this study is the possible feminization of subject specialization and its implications for future availability of women teachers. There is a paucity of women maths and science teachers. Girls and especially girls from marginalized communities have limited access to science and math education because most government girls' school do not offer these subjects. Further, social perceptions show that math, in particular, is beyond the inherent capabilities of girls. This deficit in math and science students continues into the college level and at B.Ed. level and as a result, very few women science and math teachers are available.

Even if science is offered, the decision to choose the subject is influenced by a host of factors. Parents believe that all girls have to get married and do not need to pursue any profession. Further, in all FDGs both with girls and at the community level, it was shared that a major reason for girls to elect the arts stream was that parents were unwilling to invest in the additional financial costs involved with science, such as lab fees, tuitions etc.

Similarly, in the 7 UG colleges surveyed, there were very few women teachers in the science stream, and even fewer faculty, both men and women from the marginalized communities. Analysing the situation of women teachers at the secondary level, what comes to the fore is the poor participation, completion rates and transition to the next higher level of education among girls from marginalised communities. Besides the class and caste divides, addressing gender subtext that underpins all aspects of girls and woman's life is equally challenging. The manner in which this gender bias plays itself out is clearly evident in the decisions to choose specific subjects at secondary level that does not question the accepted stereotypical roles for women, where family comes before anything else. This aspect also influences the decisions that women teachers take regarding their career prospects and advancement. Often they defer or in most cases, reject any career advancement as it disturbs their family situations.

Overview of key issues and challenges
There are no stated systemic barriers faced by women and women from marginalised communities to becoming secondary level teachers. In fact, the number of incentives and reservations in admissions at the collegiate level available for girls from marginalised communities should have been the key enabling factors. However, since government schools are the main providers of education for the poor and marginalised communities, the poor quality of education available in elementary government schools contributes to poor achievement and performance at secondary level. This leads to very low participation in higher education, low success in qualifying examinations and therefore, resulting in very small numbers of women, especially from the marginalised communities who actually become secondary level teachers.

To add to this, there is a long gestation period of nearly 6 years after completion of higher secondary to acquire undergraduate and postgraduate degrees, teacher training certification, and RTET before final recruitment. This is a daunting task especially for marginalized girls, who often do not have sufficient resources or support to undertake this journey.

Field observations and interactions in the 3 districts highlight the need to address some key areas of concern that have emerged from this study and which require some policy and programmatic changes and interventions. Similarly, community concerns and ground realities need to be taken on board if the goals of universalization of secondary education are to be realized. Different stakeholders, parents, girls and teachers pointed to an urgent need to reconsider the entire policy on ensuring access to secondary education, especially for girls and to put in place mechanisms to increase the numbers of women teachers.

Low representation of women in the teaching profession
In Rajasthan, representation of women, especially from the marginalized communities, in the teaching profession at the secondary and collegiate level and even as teacher educators is very limited. The lack of women teachers at the tertiary level devolves back to the whole issue of girls' participation and completion of secondary education. The number of women science and math teachers is worrisomely low.

Changing community perceptions
It is important to note that there has been a perceptible change in community and parental perspectives on girl's education as our field interactions showed. The thrust on universalization of elementary education for the past 25 years now seems to yield some positive outcomes. These changed attitudes at the ground level need to be capitalized on and is an important pointer for policy makers.

Having said that, it is no longer a question of whether girls should be educated, but the conditions under which girls can continue onto to secondary and tertiary levels of education. There are social sub-groups in remote areas among specific communities (such as Rajputs, Muslinms, SCs and STs) that continue to support early marriage for girls and are not keen on secondary education for girls. This is a message from across the spectrum of communities in urban and rural areas that we interacted with.The assumption that a positive environment for girls' education has been created under UEE campaigns and nothing further needs to be done at the community level requires to be critically revisited.

Rethinking access of girls to secondary education
The issue of access to secondary schooling needs to be seen from the context within which it is being enabled. There are several factors that impinge and influence access to education, especially in a traditional cultural context such as Rajasthan. In case of girls, and especially from marginalized and excluded communities, strong cultural and traditional constraints on girls' mobility and perceived threat to the safety and security of older girls needs to be taken on board. The latter issue of safety and security is emerging as a key constraint and barrier to girls' education at secondary level. While there is an overwhelming demand for girls' only school at secondary and senior secondary level, currently there are

very few girls' only schools and the policy does not expressly promote or support separate schools for girls, which is a matter of concern.

Hostel facilities at the secondary and collegiate level
The importance of hostels cannot be overstated as mamily concerns of rising transport costs and safety issues often work as a major deterrent. The overwhelming message from all FGDs with girls in schools, colleges, B.Ed colleges across 3 districts was that access to a hostel is critical, especially in rural areas where the distances to travel are quite considerable. Hostels are also required across the spectrum at secondary, collegiate and teacher training level. In far-flung and geographically difficult locations it would be necessary to start hostel facilities for girls so that even those living in remote areas can participate effectively in secondary education. While opening of hostels is part of the overall gender and equity strategy of RMSA, there does not seem to be any clear and strategic plan in place to locate hostels after mapping local needs.

Safe public transport
The need for safe transport has also been pointed as a major problem. There is a heightened perception of how unsafe it is for girls to travel alone, especially older girls. This issue is particularly critical in rural areas such as Baran and Barmer where habitations are dispersed and the nearest secondary school or college may be 10 to 15 km away. And even in urbanised areas like Ajmer where safety and security concerns are high among the Muslim community, and where distance to school or college may not be as much, the fear of harassment and teasing is a major deterrent that has an adverse impact on girls' higher education.

Address poor access to science / math and commerce education:
Our field sample showed that in general, very few girls and an even smaller number of SC, ST and Muslim girls opt for science stream. Girls at higher secondary level and at the collegiate level cited several reasons why they did not choose this stream. The predominant reason was the non-availability of science being offered in girls-only higher secondary schools. As girls have to go to co-ed schools for pursuing these subjects, they cannot do so as their families are often wary of co-education. This is particularly true of the Muslim community. Another important reason cited was the additional costs involved in pursuing science. Families are often unwilling to make this extra investment, girls especially those from very poor families (SC and ST) are compelled to opt for the humanities and arts stream.

The loud and clear message from the field is the urgent need to expeditiously increase the pool of women teachers as girls have reported being more comfortable especially in co-ed institutions if there are more women teachers. Parental concerns of safety would then also be allayed to some extent.

Counselling to exercise informed choices to select the academic stream at senior secondary
Girls in secondary schools and colleges also pointed out the lack of counselling on what academic streams to follow and what careers to pursue. They stressed that this is an important area that needs attention.

Negotiating a gender impervious and hostile environment in educational institutions
A critical and likely major deterrent to girls studying in co-ed institutions is the difficulties of negotiating the social environment in and outside the classrooms in all levels of institutions. This was the common thread that ran through all our interactions and discussions with girls in schools and colleges and equally with the women teachers. Harassment, sexual innuendoes, physical safety, fear of mobility within the institution and derisive talk were reported as making life in co-ed institutions very stressful.

The Way Forward

Need for dialogue at the community level: Our field interactions indicate that there is a need to engage in dialogue at the community level where provisions, entitlements, benefits of secondary education and the forward possibilities for skill development and employment are foregrounded.

Reconfiguring the secondary school: In Rajasthan, the government has two options to reconfigure secondary education - either to open new girls' only secondary schools or alternatively start girls' only shifts in existing boys' schools, where girls enrollment is limited. The shift system currently exists in many urban-based schools and ensures the optimal use of resources. Quite obviously, any attempt to increase the pool of women teachers would need to have an integrated and organic approach that builds bridges across secondary, collegiate and teacher training levels. In the current context, each of these education levels are discrete and self- contained silos. What is needed is a sharp break from such practice and to creatively re-conceptualise the whole education continuum. GOR's current plan to start a higher secondary school in each Panchayat would address the issue of access to a large extent. As this plan is already in the pipeline, introducing separate shifts for boys and girls should not be difficult.

Increasing provision of hostels: Mapping critical locations where opening a girls' hostel would make a crucial difference and that needs to be done expeditiously. The issue of hostels would be of equal importance for boys from remote areas and from poor communities. Another way in which hostels could be provisioned is to locate them within the catchment area of a higher secondary school. A similar forward-linkage is essential and provisions made to provide hostels for girls studying in college and B.Ed programme.

Ensuring safe transport: As GOR plans a secondary and higher secondary school at each Panchayat, it maybe useful to provide separate bus services for girls only in rural areas. In urban areas, an escort for groups of girls to go from their home to school could be considered. This is a strategy that would be welcomed especially by the Muslim community.

Promote science education among girls: Every girls' school, especially in the government sector, or at least a nodal school for cluster of schools must offer science and mathematics at the higher secondary levels. The government could consider providing additional academic support to girls from marginalised groups, (this is also equally important for boys from marginalised social groups) especially in classes IX and XI. Scholarships for pursuing science and maths at school level should be introduced with a focus on promoting science among girls.

Career Counselling and guidance: The government needs to consider systematic career counselling in schools, and at college level, as most students do not have much guidance from parents.

Building an educational environment sensitive to gender and social diversities: The government, in collaboration with women's organisations, could organise workshops in every secondary and higher secondary school to engage students in a dialogue on the importance of creating a non-discriminatory environment in the school. Given the wealth of evidence on sexual harassment, caste and community based discrimination, and prevalent social attitudes towards the marginalised, schools and colleges should be positioned as spaces where teachers and students learn and internalise the values of non-discrimination and equality enshrined in the Constitution of India.

Strategic plan to increase the pool of women teachers: The government needs to make a district-wise estimate of women teachers required if the options of education of girls either through girls' only school or separate shifts are implemented. Accordingly, seats for women in B Ed colleges need to be increased. Equally, the allocation for different academic streams needs to be re-examined to reduce the skewed

allocations and to ensure that the numbers of seats for science are increased substantially from the current 10% to 20% at least. Perhaps an incentive for students who opt for science stream could be considered.

Finally, the government needs to have a time-bound plan to ensure that teacher recruitment that has been held up is expedited. Further, efforts must be made to recruit at least 50% women among them and even give priority to recruiting new teachers for science /maths stream.

Part 1: Introduction

The issue of universalising secondary education and elimination of gender and social disparities in primary and secondary education in India is central to much of educational policy and programme formulation. Ensuring gender and social equity in secondary education is a huge challenge in a social context where cultural practice and attitude are biased against girls, barriers to girls' education are manifold, and security of girls, which is emerging as a major concern. The experience of the elementary education sector over the past two decades suggests that women teachers and alternative /residential educational centres run by women teachers has a positive impact on parental decisions to send girls to school. This is particularly evident in the case of excluded and marginalised social groups such SCs, STs and Muslims. The KGBV programme of the Government of India and various accelerated learning initiatives such as the Mahila Shikshan Kendra (MSKs) of the Mahila Samakhya Programme and the Balika Shivir of the Lok Jumbish programme in Rajasthan have often been cited as effective models where the presence of women teachers and a safe learning environment are critical determinants in the education of older girls and first generation learners from very excluded and marginalised communities in particular.[2] As Ramachandran (2007) comments, "The teacher is a mother, a sister, a sounding board and a confidant. This multifaceted relationship removes fear from the learning process. Most of the students in Balika Shikshan Shivir (BSS) of Rajasthan saw their teachers as role models, someone they could reach out to and someone who believes in them. Equally, the teachers in BSS were sensitised to the social and economic situation of the students. As a result, they did not exhibit caste/community prejudices or push girls into stereotypes"[3].

However, does the presence of women teachers continue to make a difference at the secondary level as well? This study examines the context of women teachers and explores the significance of women teachers to the achievement of gender and equity goals at the secondary level.

The study is focused in the state of Rajasthan, located in North-western India and is the largest state in terms of geographical spread. Adverse human development indices such as high degrees of gender and social inequality, inadequate physical and social infrastructure, low literacy and high infant mortality rates and deep-seated gendered cultural beliefs and practices make Rajasthan one of the more backward and underdeveloped states in India with huge rural-urban differences.

The study is expected to throw light on the nature and extent of vulnerability and marginalisation at the secondary level as a result of location i.e. urban-rural, and social identity i.e., traditionally excluded and marginalized social groups such as Schedules Castes, Schedules tribes and Muslims.

1.1. Objectives of the Research study

The overall goal of this research study was to analyse the situation of women teachers at the secondary level and their significance to the achievement of the national goals of gender and equity in secondary education, with a special focus on the state of Rajasthan. Conceived as an exploratory and qualitative study, it is expected that the study would add to the body of knowledge on a) the teacher related issues in secondary education; b) contribute to the discourse on gender and education in general; and c) most importantly, inform education planning and action.

---

[2] Reports of the National Evaluation of the KGBV programme, 2007, 2008, 2013;
[3] Ramachandran, V. (2004). Fostering opportunities to learn at an accelerated pace: Why do girls benefit enormously? UNICEF, ICO, New Delhi

- To examine the status of women teachers at the secondary school level within the Indian context and in the state of Rajasthan in particular.
- Examine the barriers to effective entry and participation of women teachers at the secondary level – especially in science, mathematics and related technical fields.
- To explore ways in which availability of women teachers facilitates promotion and enhancement of girls participation, especially from marginalized groups
- Engendering the secondary school system itself.

Key learning questions / issues that were explored were:
- Barriers to entry and completion of secondary education of girls from diverse poverty and marginalized situations in Rajasthan – rural-urban as well as social identity related – including possible determinants of a girl-friendly school for girls from diverse poverty and marginalised situations in Rajasthan and how important is the presence of women teachers.
- Factors inhibiting or enabling entry of women as teachers at the secondary level and influencing subject specialization choices
- What possible strategies or alternative paths could be effective to get more women secondary school teachers, especially in mathematics and sciences?
- How can gendering of the secondary school profession be addressed?

1.2. Planning the study

Prior to starting the study, senior officials of the Education Department, Government of Rajasthan and Rashtriya Madhyamik Shiksha Abhiyan (RMSA), Rajasthan were apprised of the proposed study and its objectives. The response from the Government of Rajasthan (GoR) and RMSA was very positive and the study was welcomed. As the state is currently grappling with issues of secondary education and in particular ensuring and enhancing girls participation, the study was seen as both timely and its findings likely to inform the planning process of the state, in particular the RMSA programme. During these preliminary discussions itself, a broad endorsement of the study design and criteria for selection of sample districts both from the government and other researchers in the state was obtained.

1.2.1. Research Advisory Committee
A Research Advisory Committee (RAC) was constituted to provide critical inputs and support at key stages of the study: i) finalization of the research design, sample and research tools ii) to comment on the draft report and suggest revisions to ensure that the key research questions are adequately addressed iii) and to assist in the dissemination of the study findings.

The members of the RAC were drawn from persons who had vast experience in the education sector and were from academia, NUEPA and education activists who have been working on policy, implementation and field realities. The members of the Research Advisory Committee were Dr. Sharada Jain, Director Sandhan Resource Centre for Education, Jaipur; Dr. Pramila Menon (Retd.) from NUEPA; Prof. Rita Arora, Head of the Department of Education, Rajasthan University; and Dipta Bhog, Nirantar New Delhi.

1.2.2. Ethics protocol and Internal Ethics Committee (IEC)
At the time of proposal development, MacArthur Foundation had drawn the attention to put in place an Ethics protocol since the research study involved interaction with human subjects at various levels. A quick scan of the ethics rules and guidelines showed that unlike the health sector that has well established ethics protocols for research that includes human subjects, currently in India, there are no laws pertaining to ethics protocols for social science research and research on minors. None of the National Institutions

such as the National Commission for the Protection of Child Rights (NCPCR), National University for Education Planning and Administration (NUEPA), National Council for Education Research and Training (NCERT) and the Technical Support Group (TSG) of Sarva Shiksha Abhiyan (SSA) have done any work in this area. Drawing upon processes developed by some of MacArthur's partners and ERUs own work, an ethics protocol was developed for this study with the support from Ms Neha Madhiwalla, who is the Member Secretary of the Multi-Institutional Ethics Committee of CEHAT and Co-coordinator, Centre for Studies in Ethics and Rights, Mumbai. Once the protocol was finalized, the entire research team was oriented on the ethics protocol and norms to be followed.

An Internal Ethics Committee (IEC) was constituted with Dr. Leela Visaria, Gujarat Institute of Development Studies, Ahmedabad; Dr. Kanchan Mathur, Institute of Development Studies, Jaipur; Mr. Narendra Gupta, Prayas, Chittorgarh and Mr. Ravi Duggal, International Budget Partnership, Mumbai as members. Before launching the study, the Ethics protocol was discussed in the IEC meeting and based on their suggestions the research protocol was modified and simplified.

Box 2: Suggestions of the Ethics Committee

The Ethics Committee suggested that we needed to be alert and avoid a bias creeping in during selection of teachers and students for the FGDs and interviews. Efforts should be made to ensure that students of the marginalised communities are included. It was also decided that all students of class 9 and 11 would be included.

Equally, if the numbers of teachers are more, then teachers would be selected on the basis of subject specialisation - for example, if 4 teachers are to be interviewed in each school, then the subject teachers could be one each from mathematics, science, social studies and language (Hindi).

Regarding obtaining parental consent for their daughters' participation in the FGDs in schools, the IEC suggested that a note was to be sent with students the previous day, so that the students could take the permission of their parents to participate in the FGD.

Since senior officials such as Director of RMSA, Chairman of the Board of Secondary Education and other heads of institutions were met after making prior appointments, ERU did not insist on them signing the consent form. The very fact that if they gave an appointment, it would be an indication of informed consent.

A two-stage process was suggested for the FGDs at the community level. First an FGD with parents (mothers and fathers separately) of girls who have dropped out of school after classes 8, 9, 10 and 11 and seek their permission to invite their daughters for a FGD. In this way, the consent of parents could be obtained before conducting the FGDs with girls. It was decided that FGD with girls would be done only after the meeting with parents.

Ethical dilemmas, if any, faced in the field must be noted down and reported to the Ethics Committee after the completion of the fieldwork. In the event the research team comes across instances of sexual harassment or violence, these could be referred to a local NGO. The research teams could carry the names and phone numbers of local NGOs who could be contacted by the students / parents or teachers if they need support.

The Ethics Committee asked ERU to develop a Standard Operating Procedure (SOP) for this study and circulate it to the IEC. The Committee stressed the need to ensure privacy and confidentiality of the information / data collected.

1.2.3. Ethical Challenges faced and how these were overcome

One common experience that was faced across all three districts was that teachers, officials and headmasters / headmistresses declined to give a written consent. Government officials were wary of signing any paper and they said that as prior appointment with each one of them had been sought to conduct the interview, their willingness to meet and be interviewed should be taken as consent. Therefore, the research team recorded it as informed consent to be interviewed. In most cases, we also shared the questions that we were planning to ask at the time of seeking the appointment for the interview.

FGDs with students in the schools and colleges were done after seeking permission from the head of the institutions and wherever it was possible, the students were informed a day in advance (through a one-page note) and were asked to take their parents' permission. FGDs with parents of girls who had dropped out (mothers in most cases) were held first and then FGD with girls were conducted. Therefore, parental permission was sought after FGDs with mothers. In the case of FGDs with parents (mothers / fathers), they were first given information on what the FGD was about and then their oral permission was sought.

Officials, head masters/mistresses and schoolteachers were hesitant to sign any document because the concept of signing on a sheet (as written consent to be interviewed or to participate in an FGD) was alien to them. Further, all officials, headmasters and teachers also declined permission to use a voice recorder. As a result, no interviews were recorded and the teams only took detailed field notes. Similarly, interviews and FGDs in the Undergraduate and B.Ed colleges were not recorded as the heads of institutions objected to the use voice recorders.

In one district, a group of fathers refused to participate in the FGD and in another, they were not available. Therefore, in those areas, FGDs with fathers of adolescent girls who had dropped out of school were not conducted. The ethical dilemma with respect to parents seeking the teams' advice or asking for help did not arise in any research site. During FGDs with girls, in one district two girls talked about being beaten by their father and the local NGO that had facilitated this FGD in the community was aware of this situation.

1.3. Sample selection

Several different parameters were used to decide the sample districts, blocks and schools/colleges. These parameters were decided keeping in mind the objectives of this study to explore and examine issues of women teachers, gender and equity at the secondary school level. The criteria for selection of the field sample were as follows:

- Districts with high concentration of Scheduled Caste (SC), Scheduled Tribes (ST) and Muslim population;
- Urban and rural representation;
- Presence of teacher training institutions;
- Percentage of women teachers at secondary level - higher than state average, closer to state average, and lower than state average.

In Rajasthan, the STs and Muslims are concentrated in specific geographical locations. Muslims are primarily concentrated in urban areas and STs mostly in the districts of Baran, Banswada and Udaipur. SC concentrations, on the other hand, are more dispersed across the state, with the highest concentration of around 34% in Sriganganagar district.

The criteria for selection of specific blocks in a district followed similar parameters. In each district, two blocks were selected, one block that closer to the district headquarters and other one in a remote location. This is was in order to enable a better understanding of relative deprivation and subsequent challenges.

Another key area that the study explored was access of girls to science education. Broad sets of criteria were decided to select sample schools. These criteria included availability of girls' senior secondary schools; science and maths streams being offered in schools; presence of women teachers for science and math; and in case the school did not offer math and science, a co-ed school was included where science stream was offered. Since the study was centred on women teachers, additional criteria such as opportunities for teacher training as well as the status of women teachers at the secondary level in the district were also added. ERU initially identified districts of Bundi, Barmer and Ajmer for the study. However, RAC recommended that instead of Bundi, Baran district should be included since it is a tribal district.

1.3.1. Profile of sample districts

As mentioned earlier, three districts that were selected for this study were Baran (poor, high ST population); Barmer (geographical and developmental disadvantage and high SC population) and Ajmer (high urban Muslim population).

Table 1: Demographic profile of sample districts

	Rajasthan	Barmer	Baran	Ajmer
Rural pop	75.13	93	79.21	59.92
Urban pop	24.87	7	20.79	40.08
SC pop	17.8	16.8	18.1	18.5
ST pop	13.5	6.8	27.3	2.5
Muslim*	9.8	11.8*	6.49*	11.2*
Literacy	66.11	57.5	66.66	69.33
Male literacy	79.19	72.32	80.35	82.44
Female literacy	47.76	41.03	51.96	56.68
Sex ratio	928	902	929	951
Child-Sex Ratio	888	904	912	901
Source: Census 2011; Figures for the Muslim population is based on Census 2001				

Table 2: Percentage of women teachers and teacher training institutes in sample districts

S. No.	District	% of women teachers (2011-12)	Post Grad (Teacher Training Institutes)	Under Grad (Teacher Training Institutes)	Under Grad Girls (Teacher Training Institutes)
	Rajasthan	19			
1.	Baran	16	1	2	1
2.	Ajmer	37	4	2	1
3.	Barmer	8	1	1	2

Baran was identified as one of the district because it is one of the poorest districts in Rajasthan with more than 70 per cent families identified as BPL, of which 40 per cent are Scheduled Caste/Scheduled Tribes. SC population in the district is 18.1% and ST population is 27.3 %. Two blocks i.e. Shahbad and Kishanganj have predominance of Sahariya population (30 % and above). Concentrated efforts and affirmative action has been taken by successive governments to address issues related to the development of Sahariya population in the district. The continuance of the Hali system, a form of bonded labour, which in most cases continues inter-generationally, presents a development challenge in the district. The district has also reported incidents of malnutrition and hunger deaths among children in recent years. As per the 2011 Census, Baran has a literacy rate of 59.50% (80.35% male and 51.96% female) and the sex ratio in the district is 926.

Barmer is the third largest district (in the country after Jaisalmer and Bikaner) in terms of area[4] and is located at the Western frontier bordering Pakistan. The Thar Desert covers a part of the district. Barmer is considered among the country's 250 most backward districts. The urban population of the district is just 7 per cent. As per 2001 census, the district has a significant proportion of SC (16.8%), ST (6.8%) and Muslim (11.8%) population. The vast geographical spread and low population density pose hindrances in outreach and accessibility of physical and social infrastructures, with border areas lagging behind the rest of the district. As per the 2011 Census, Barmer has a literacy rate of 57.5% (72.8 % male and 41.03% female) and the sex ratio is low at 902.

Ajmer, unlike the other 2 districts, is one of the more developed and urbanized districts of Rajasthan with an urban population of around 40.08%. The district has a significant Muslim population of 11.2%, most of whom reside in urban areas, and 17.71% SC population. The ST population is an insignificant percentage at 2.41%. The literacy rate as per the 2011 Census is 69.33% (82.44% male and 55.68% female literacy). The district and Ajmer city, in particular, is an important educational hub with a large number of educational and professional institutions. There are 3 universities including one Central University as well. The Board of Secondary Education is located in Ajmer city.

While Rajasthan has made huge strides in literacy rates over the past couple of decades, it still continues to be a state with huge variations in literacy across rural and urban divides and between men and women. The gap between male and female literacy in both Baran and Barmer districts is over 30 points and even in Ajmer district, which has better literacy figures, female literacy continues to lag behind. In all the 3 sample districts, rural areas report much lower literacy rates than urban areas. And not surprisingly, rural female literacy is further low. The situation among SCs and STs, as per the 2001 Census is also a great matter of concern.. (See Table 3).

Table 3: Literacy rate among SCs and STs in Rajasthan

	Total	Female	Rural Total	Rural Female	Urban Total	Female Total
SC	52.24	33.87	49.86	31.18	52.24	33.87
ST	44.66	26.16	43.70	25.22	44.66	26.16
Source: Census 2001						

The status of literacy in urban and rural areas and between men and women across sample districts is given below in Table 4. In such a scenario where adult female literacy continues to pose a major challenge, attempts to increase the pool of women teachers needs long term strategies.

Table 4: Male and female literacy in rural and urban areas in sample districts

	Total	Rural	Urban	Total Male	Rural Male	Urban male	Total Female	Rural Female	Urban female
Rajasthan	66.1	61.4	79.7	79.2	76.2	87.9	52.1	45.8	70.7
Ajmer	69.3	59.1	83.9	82.4	76.5	90.8	55.7	41.3	76.5
Barmer	56.5	54.8	78	70.9	69.4	88.6	40.6	38.6	66.6
Baran	66.7	63.6	78	80.4	78.4	87.8	52	47.8	73.7
Source: Census 2011									

---

[4] Census 2001; 2011

1.3.2. Sample size and profile of selected institutions at different levels

The Research study covered 6 blocks across 3 districts, 6 secondary/higher secondary schools (4 girls schools only), 6 government and private undergraduate colleges (3 girls colleges only), and 6 government and private B.Ed. colleges (1 girls college only). A brief profile of sample of schools, B.Ed. colleges and Undergraduate Colleges selected for this study is given below in Table 5.

Table 5: Profile of sample institutions covered in the study

District	Ajmer		Baran		Barmer	
	Urban	Rural	Urban	Rural	Urban	Rural
Secondary/ Senior secondary schools	Govt. Girls' Senior Secondary school	Govt. Girls' Secondary school	Govt. Girls' Senior Secondary school	Govt. Girls' Senior Secondary school	Govt. Girls' Senior Secondary school	Government Sr. Secondary (boys): Girls given admission for science and commerce streams
Under Graduate (UG) Colleges	Govt. UG (Co-ed)	Private UG (Co-ed)	Govt. girls' UG	Government UG (Co-ed)	Government girls' UG	Govt. girls' UG
B.Ed colleges	Govt. B.Ed	Recognised B.Ed for girls only	Recognised B.Ed	Recognised B.Ed	Recognised B.Ed	Recognised B.Ed
Source: Field Notes						

As this study was intended to feed into the on-going efforts of the government to strengthen initiatives for secondary schooling, especially of girls from vulnerable communities, concerted efforts were made to bring education officials on board with the expectation that findings may elicit a positive response from them. At the state level, all senior education officials were apprised of the study and its objectives and their help was sought in order to introduce the research teams to district education officials.

The Research Advisory Committee (RAC) also advised that given the exploratory and qualitative nature of this study, it would be best to identify specific blocks, sample schools and colleges in consultation with district education officials. Accordingly, an official letter from RMSA to the concerned district officials was obtained.

In all 3 districts, the research teams had detailed consultations with District Education Officers and RMSA officials. Based on their suggestions and inputs, sample schools and colleges were finalised. RMSA officials took the initiative of informing the Heads of the selected schools of the study and sent them an official communication. This helped the team to schedule the interviews with ease, which saved a lot of time. The teams directly contacted the UG colleges and B.Ed. institutes for speaking to the Directors, teachers and students as higher education is beyond the purview of RMSA.

1.4. Research Tools and methodology

The research tools and methodology included a review of secondary literature and data, as well as a set of tools for conducting in-depth interviews and focus group discussions. The semi-structured and in-depth interviews covered a broad set of questions/ issues on all aspects of secondary education to be explored in discussion. The questions were developed keeping in mind that these questions would be asked from the government officials and heads of educational institutions at the secondary and college level. Different checklists for focus group discussions with different groups such as teachers in sample colleges and schools, girl students in sample secondary schools, adolescent girls who had dropped out at the secondary level and at the community level, were also developed.

The research tools and guidelines for the study were collaboratively developed and finalized with the research teams involved in different districts, along with inputs from the Research Advisory Committee as well. The tools were field tested before they were finalised and were shared with the RAC (See annexure 1 for details of individual research tools).

Table 6: Research Tools

Research Tools	For Whom
In-depth interviews	• GoR Education Department Officials • District level education officers • Principals of Colleges of Education and Undergraduate Colleges • Principals of secondary/ higher secondary schools
Semi-structured interviews	• Male and female Faculty of colleges of education • Teachers of secondary/ higher secondary schools
Focus Group Discussions	• Women students of Colleges of Education • Women students of Undergraduate Colleges, girl students of secondary / higher secondary Schools • Community level - with parents including parents of girls who dropped out • Community level - with girls who have dropped out at elementary/ secondary level

Overall, a total of 68 interviews and 45 FGDs were conducted with stakeholders at various levels.

Table 7: Nos. of IDIs and FGDs conducted

Districts	Ajmer	Barmer	Baran
IDIs			
Sec Schools			
• Principal	2	2	2
• Teachers	8	6	6
UG Colleges			
• Principal	2	2	2
B.Ed. Colleges			
• Principals	2	3	2
• Teachers	6	4	6
Government Officials	5	6	2
Total IDIs = 65 3 IDIs conducted with officials at state level	25	20	20
FGDs			
Sec. Schools			
• Girls	4	4	4
• Teachers	2	1	2
UG Colleges			
• Students	2	2	2
B.Ed. Colleges			
• Students	2	1	1
• Teachers	2	1	1
Community			
• Mothers	2	2	2
• Fathers	0	1	1
• Dropout girls	2	2	2
Total FGDs = 45	**16**	**14**	**15**

1.4.1. Pilot testing the research tools

The tools were pre-tested in one government Senior Secondary School and a private B.Ed. college in Jaipur. Pilot test results showed that the research tools required a few minor alterations. The tools were translated into Hindi so that the partners could easily understand them, especially during field level transactions.

Box 3: Piloting research tools

After the research tools were developed, three members from the team carried out the field-testing in the city of Jaipur. Sample school chosen (recommended by RMSA –Jaipur office) was a Government Girls' Senior Secondary School (GGSSS) and a privately managed B.Ed. college. Both institutions were urban and therefore, issues of accessibility, availability were not critical. Again, in both institutions, interviews were conducted with the teachers, girl students as well as the Principals.

Senior Secondary School
This was a pre-independence era, mission school in a densely Muslim populated area located within the heart of the city. The school had student strength of 1200, out of which 95% students belonged to the Muslim community and were also engaged in home-based traditional income generation activities. The school has a good infrastructure with adequate number of classrooms, a library, a laboratory, computer lab and functional toilets.

The school offered all three streams of subjects (science, humanities and commerce). One significant aspect was that 11 posts of teachers were vacant, even though this is an urban school amidst the city. Except for science, which was taught by a male faculty, women taught all other subjects.

The FGD with the class 9 and 11 girls was instructive. Most were first generation students, who aspired to become doctors, scientists and managers. *Very few wanted to become teachers.* The perceived advantages of education as expressed by the girls were: greater self-confidence, respect within the family and community. However, they considered science 'tough'. On the issue of women teachers, girls said it did not make any difference if the school had female or male teachers. This would not influence even the parent's decision to send their girls to school (It is important to remember that this school was located in the heart of the urban metropolis of Jaipur).

The teachers in this school felt that girls came into class 9 ill-prepared to deal with maths and science. This, they felt, was a result of the poor quality of teaching and learning at the elementary level where children were automatically promoted up to class 8 because of the no-detention policy of the government. This had a great impact on secondary level learning achievements of students. The Science teacher said that sometimes she has had to even teach girls how to write. Though there were very few dropouts, only about 5% girls went to colleges. Also, only few girls opted for science and maths as they had been brainwashed (at home) into thinking that maths and science were meant only for boys. This is in stark contrast to the stated aspirations of the girls mentioned above.

The Head Teacher reported that on the professional front she faced many hurdles. Her promotion had been delayed and she suffered a substantial loss in her monthly salary because of some procedural delays. She felt frustrated that there was no recognition of the hard work she had put in to draw so many Muslim girls into mainstream education. On the contrary, there were some 8-10 Principals (males) in other schools who did not even attend school but continued to draw salaries higher in comparison to her. According to her, there was rampant discrimination against women teachers/Head mistresses and female Principals. Male teachers did not teach, but indulged in politicking and bonded with males (officials) for personal gratification. She considered that women were serious workers, had no time for these activities, and were, therefore, left out. Even for awards for Teachers Day on Sept 5, there had been back door recommendations for male teachers though it was women teachers who played a vital role in girls' education. She felt that women are equally comfortable teaching both boys and girls, while men, on the other hand, have difficulty in handling girls. More importantly, parents of adolescent girls experience a certain 'comfort level' when their girls are being taught by women, particularly in the Muslim community that her school catered to. However, for science and maths there exists a bias against women teachers, as parents have less confidence in a female teacher for math/science as compared to men teachers.

B.Ed College
The B.Ed. College was a private college established in 2006. It ran a multitude of wide ranging courses like Nursing

and Technical Education (like ITI). The campus was situated on the outskirts of the city, with hostel facility for only 10 girls. Though the campus was spread out, the space for B.Ed classes was limited to a few rooms. The student strength was limited to 100 (only girls), and seat allocation was as per rules: 10 for commerce, 30 for Science, and 60 seats for Arts. Here 50% students belonged to the ST category. In the B.Ed College, girls were not available for discussions as the examinations were on and the fresh batch had not yet joined. The enrolment of students according to subject was revealing as only 16 out of the 30 seats for science stream were filled. It appeared that social sciences, languages and other arts subjects were more popular.

In the B.Ed. College, faculty consisted of one male and 7 women teachers. Only 3teachers were available at the time of visit. They informed us that very few girls were interested in teaching as a career. However, they opted for teaching when other opportunities were closed or they experienced failure in obtaining admission elsewhere. Further, teaching was perceived as respectable and suitable option for women and more importantly, that women, after marriage could manage home and career simultaneously without much stress.

Reasons cited for girls not taking up science were many. Firstly, many did not have access to science education at higher secondary school level. Even those who did have access to science chose not to opt for it because of financial constraints – science education required private coaching, laboratory fees etc. Further, families were unwilling to invest in girls' education and time required to settle down in a career based on the science stream was longer than other subjects. Again, a large percentage of students opted for arts because these subjects assisted students to appear for Rajasthan Administrative Service Examinations. Additionally, there were many more job vacancies for these subjects as all schools (government or private) offered Arts subjects, while only few schools offered science and maths.

Observations on the tools:
The pilot testing did not suggest any changes to be made in the research tools, except some minor changes in language. However, what was clear was that all the tools required considerable amount of time for transaction. Especially FGDs seemed to require much more time than estimated. Teachers and students were not keen on being recorded but willingly gave their oral consent for participation. Since the testing was done in an urban setting within the limits of Jaipur, it afforded us another window to understand the issues that were being investigated.

Source: Notes on pilot testing, July 2013

Since the study attempted to understand the situation of girls who had dropped out at different stages of schooling, FGDs were also organised with dropout girls. However, identifying girls who had dropped out after elementary or during the course of secondary education dropouts was difficult and required some effort, as it was difficult to meet them at a common place. Dropout girls were therefore identified via two sources: a list was procured from schools of all children who had dropped out at elementary and secondary levels. Then an attempt was made to visit these children in their homes across some villages. Secondly, dropout girls were identified through various NGOs working in the area of school education. Discussions were held with children and their parents in their homes as well as in agriculture fields where they were helping their parents. Discussions with parents were carried out both individually and in groups.

In Ajmer, Doosra Dashak and Garib Nawaz Mahila Evam Bal Kalyan Samiti, in Barmer district, SURE and Mahila Mandal and SAWERA in Balotra Block and in Baran district, Sankalp, BGVS, ICICI Foundation and Doosra Dashak were NGOs who were of great help in facilitating community level interactions. All these NGOs have a deep understanding of the local context and the education scenario in general, especially the challenges girls are facing from vulnerable communities.

1.5. Limitations of the Study

By and large, the research team did not encounter any major hurdles in the field, and in meeting and interacting with heads of institutions and students. However, unprecedented rains and examinations in the

teacher training institutions posed hindrance to some extent. Dissemination plans were affected due to the general elections.

It was extremely difficult to contact and speak with fathers of drop out girls in both rural and urban sites in the 3 districts. In urban sites, they were not available due to work timings/holidays and many had gone home to their villages. In the rural site in Barmer, they were too busy with work and therefore, could not be contacted

At school level, research teams encountered problem of accessing updated data as well as data pertaining to last 3 years. Also, there was a mismatch in the data provided at both school and district level in all 3 districts. In B.Ed colleges, data gaps were also observed and the team had to continuously follow up with the Principals to give us data pertaining to student's social group-wise enrolment etc. Data was not properly maintained in B.Ed colleges, i.e. it was not consolidated and therefore, it took time to pull out information from the files for successive years. The data was also not maintained according to subject or according to social group of students. The colleges only had lists of students and streams opted, as sent by the university.

Even the data provided by UG Colleges was inconsistent and had to be re-checked even though their reporting is computerised for submission at University level. Overall, there were errors and discrepancies in the data shared, not only by schools, colleges and B.Ed institutes, but also in the information shared by RMSA district unit as well.

The team would have been in a better position had there been introductory letters for Principals of UG colleges/B.Ed colleges from the concerned government departments. Nevertheless, they gave appointments and spoke to the researchers. In one district, however, the team faced a setback. Even though the B.Ed Institute director gave the permission to interview the principal and staff, this was later forestalled.

Part 2: Educational Backdrop

2.1. The symbiotic linkage between women teachers and Girls' Education: Historical context, policies and challenges[5]

There has been no dearth of policy recommendations or specific interventions to advance and increase the pool of women teachers, especially at school level. No doubt, this concern was entwined with the larger national goals and discourse on development of modern education in India, a significant part of which involved the promotion of women and girls' education. A focus and thrust on women teachers is not a recent concern but has been central to much of the educational discourse from the 19th century. In a traditional society such as India where barriers to educating girls in the public domain were circumscribed by caste and religious restrictions, it was not surprising that the spaces for training of women as teachers opened up fairly early on. The issue of women teachers came to the fore as early as the end of 19th century when issues of modern education and education of women's and girls' education was being debated and promoted.

Some of the key milestones that emerged over the 19th and 20th centuries are equally relevant in today's context of trying to achieve gender equity. In 1882, the Indian Education Commission supported women teachers' training through residential programmes and providing financial support to female teacher trainees. Since then, there have been consistent recommendations to increase women's participation in teaching.

The demands for free and compulsory education for all children led the colonial government to introduce a policy in 1913 to increase the number of women teachers and inspectors[6]. After independence, provision of free and compulsory education for all children up to the age of 14 was enshrined in the Constitution of India itself. Equity was also a major concern as Article 46 of the Constitution states, "*The State shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and the Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation*". As J P Naik (1963) pointed out, "the expression 'weaker sections of the people', as used in this Article, is general and is not restricted to the Scheduled Castes and the Scheduled Tribes only. For example, it will obviously include women and consequently the development of the education of girls and women becomes a special responsibility of the Government of India"[7]. Nearly 60 years after independence, the constitutional commitment on compulsory elementary education became a fundamental right. The National commitment to provide free and compulsory education to all children in the 6-14 years age group is now a Fundamental Right of every child in India after the passing of the Constitution (86th Amendment) Act in December 2009.

Successive Five Year Plans and Commissions made recommendations on the issue of girls and women's education and the need to create conditions conducive to increasing the numbers of women teachers (See Annexure 2 for details of various recommendations). Several suggestions were made. For example, the Secondary Education Commission of 1952-53 suggested part-time training courses to meet shortage of women teachers.

---

[5] Section III and IV that follows also draws on the note on Girls Secondary Education in India that Ramachandran and Jandhyala had prepared for MacArthur Foundation in 2010

[6] Stacki, S. (2002). *Women Teachers Empowered in India: Teacher Training Through a Gender Lens.* New York: UNICEF

[7] Naik, J.P. (n.d.). *The Role of Government of India in Education.* Ministry of Education, Government of India

The First Five Year Plan suggested part-time teaching for married women who cannot get away fully from home responsibilities. The Second Five-Year Plan pointed out that the anticipated expansion of girls education in the Third Five Year Plan may not be realised due to acute shortage of women teachers, which was only 17 % (both primary and secondary levels together) in 1953-54. This was one of the first of the policy documents in independent India to recognise that to realise the full potential of these provisions and allocations what is needed is to generate a conducive and sensitive community environment with situation specific interventions. It also stated, "*A most urgent problem is that of girls' education. Public opinion in every part of the country is not equally alive to the importance of girls' education. Special efforts at educating parents, combined with efforts to make education more closely related to the needs of girls, are needed. The situation in each area will need to be studied separately. Where there are difficulties in the acceptance of co-education, other methods will need to be explored. In some areas there may be no alternative to separate schools. In others, it may be possible to adopt a shift system as an interim measure—one shift working for boys and the second for girls*"[8] (Second Five-Year Plan, Planning Commission, GOI 1956).

The National Commission on Women's Education set up in 1958 made wide ranging recommendations - increasing training institutions for women teachers, condensed courses, fee exemptions for such training, recruiting vulnerable women such as widows for such training, part time courses, extra coaching classes, placement centres so that women teacher graduates are immediately absorbed, among many others. The Education Commission 1964-66 under the Chairmanship of Prof D S Kothari made detailed suggestions on the issue of women teachers and specifically established the link between promoting girls education and the availability of women teachers.[9] "*In our opinion, the strategy for the development of the education of girls and women will have to take two forms. The first is to emphasize the `special' programmes recommended by the National Committee on Women's Education; and the second is to give attention to the education of girls at all stages and in all sectors as an integral part of the general programmes for the expansion and improvement of education*" (Education Commission Report, Government of India. 1966).

The next major policy that had a direct bearing on the issue of women in general was the National Policy on Education (NPE) of 1986. This policy clearly stated that the roots of women marginalisation need to be attacked if the larger goals of gender equity and equality in education are to be realised. It also stated that, "*Education will be used as an agent of basic change in the status of women. In order to neutralise the accumulated distortions of the past, there will be a well-conceived edge in favour of women. The National Education System will play a positive, interventionist role in the empowerment of women. It will foster the development of new values through redesigned curricula, textbooks, training and orientation of teachers, decision-makers, administrators and the active involvement of educational institutions*"(NPE, 1986, Para 4.2). The policy also had specific recommendations on the issue of girls' secondary education. "Access to Secondary Education will be widened with emphasis on enrolment of girls, SC[10]& ST[11] particularly in science, commerce and vocational streams" NPE 1986 (Para 5.13). Currently the race is to achieve the targets of MDGs, especially Target 4 of Goal 3 on eliminating gender disparities in primary and secondary education. The Twelfth Five Year Plan (2012-17) as well as the Secondary Education Mission, the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) are all focused on universalising secondary education.

---

[8] Second Five Year Plan, Chapter 23 on Education. http://planningcommission.nic.in/plans/planrel/fiveyr/2nd/2planch23.html
[9] The report is available at http://www.teindia.nic.in/Files/Reports/CCR/KC/KC_V1.pdf
[10] Scheduled Caste are one of the most socially and economically disadvantaged groups in India. They were considered "untouchable" and were mostly landless agrarian daily wage labourers and those who were expected to do menial tasks in society
[11] Scheduled Tribe, are part of indigenous tribal communities that live in different parts of India. Besides being socially and economically disadvantaged, they are further disadvantaged by their location in forested areas

Since 1973, the National Council for Teacher Education (NCTE) has advised both the Central and State Governments on all matters related to teacher education. The Council was located initially within the Department of Teacher Education of the National Council of Educational Research and Training (NCERT). It was the National Policy on Education (NPE), 1986 that envisaged the National Council for Teacher Education with statutory status and necessary resources as a first step for overhauling the system of teacher education. The NCTE became a statutory body in 1995 under the National Council for Teacher Education Act, 1993 (No. 73 of 1993). By 2007, 4 regional Committees of NCTE had been set up.[12]

The main objective of the NCTE is to achieve planned and coordinated development of teacher education system throughout the country and regulation and proper maintenance of Norms and Standards in teacher education system. The implementation guidelines developed in 2012 for restructuring and reorganising the Teacher Education scheme are telling in their silence over the issue of women teachers. No specific suggestion or recommendation on women teachers has been made in the guidelines[13].

It is important to note that education is on the concurrent list and hence a state subject, leaving individual states free to implement and interpret these various policy commitments and recommendations. However, from the late 1980s, through a slew of centrally designed and partially funded programmes, a more universal approach to school education was put in place. One such countrywide programme was the Operation Blackboard (1987), which was one of the direct outcomes of the New Education Policy of 1987. The scheme envisaged a minimum of two teachers in every primary school and that 50% of the teachers should be women[14]. Subsequently the District Primary Education Programme (DPEP) launched in the early 1990s, with the goal of universalising primary education, also had a clear social equity and gender mandate. Under DPEP, attempts were made to address gender in all aspects of programme design and implementation and resulted in increasing the participation of women at various levels of the programme. DPEP gave way to Sarva Shiksha Abhiyan (SSA) in 2002, which expanded the education mandate to universalising elementary education. An important aspect of SSA has also been its commitment to increase the percentage of women teachers to nearly 50% as part of its strategy to reach out to marginalised social and gender groups. A complementary programme launched was the Kasturba Gandhi Balika Vidhyalaya (KGBV), a residential programme to meet the needs of out-of-school girls mainly from marginalised social groups and to provide upper primary schooling and in some states going up to the secondary level schooling. Finding trained women teachers to teach at the upper primary level or secondary level or in specific subjects such as maths and science in the KGBVs has been and remains a challenge. This is also the case in many upper primary schools across many states.

2.1.1. Current policy framework for universalising secondary education

Ages 14 to 18 are the years of adolescence and of transition, a crucial period for young girls in many ways. Given the situation of women and girls in India, this is also the period when girls drop out of school, get married and a very large proportion of them become young mothers. The CABE (Central Advisory Board on Education) Report on Universalization of Secondary Education (2005) sets out the issue of adolescent education clearly in terms of gender issues that need to be addressed as well as linkages between education and work that become a reality for most adolescents at this stage. *"Experiences in schooling have to be designed to be responsive to the needs of transition and stabilisation. Since large numbers of students are likely to transit from education to the world of work, it is also the stage of transition to work. Secondary education must foster skills of transition. Though both boys and girls experience transition, there is a special case for girls and it needs special attention.*

---

[12] See www.ncte-india.org. Last visited on April 15, 2014

[13] Government of India (2012). *Restructuring and Reorganization of the Centrally Sponsored Scheme on Teacher Education.* New Delhi: MHRD

[14] http://www.teindia.nic.in/mhrd/50yrsedu/g/S/HS/0SHS0501.htm

Because of prejudices, taboos and social stigma, phase of transition for girls is more difficult. Child marriage, still prevalent in many parts of the country is a stumbling block for girl's education. Also, it will be necessary to develop a gender friendly curriculum"[15].

The race to achieve the targets set in the Millennium Development Goals (MDG), especially Goal-3 that requires elimination of gender disparities in primary and secondary education not later than 2015, makes the challenge of universalising secondary education all the more crucial. It is coupled with the emerging move to extend provisions of the Right to Education (RTE) Act to cover secondary education as well.

The Twelfth Plan (2012-2017) set the agenda for the expansion of secondary education in a move towards universalization of secondary education. The vision is to make good quality education available, accessible and affordable to all young persons in the age group of 14-18 years. This vision is the cornerstone of the Twelfth Plan (2012-2017) as well. The main targets of Twelfth Plan are as follows:
   a. Universal access to secondary education with a GER of 100%;
   b. Enhancing retention of children in secondary classes; and
   c. Achieving the target of 75% GER in Higher Secondary Classes by 2017.

During the Twelfth Plan, a separate secondary education mission called Rashtriya Madhyamik Shiksha Abhiyan (RMSA) was launched on the lines of Elementary Education Mission (Sarva Shiksha Abhiyan). RMSA aims to improve access and equity, improve quality, and promote standardization of curriculum, examinations and measurement of learning outcomes across states. Some specific aims of the RMSA are:
   • To provide a secondary school within a reasonable distance of any habitation, which should be 5 kilometre for secondary schools and 7 -10 kilometres for higher secondary schools;
   • Ensure universal access of secondary education by 2017 (GER of 100%), and Universal retention by 2020 (this is a modification of the timelines set out in the MDGs);
   • Providing access to secondary education with special references to economical weaker sections of the society, educationally backward, girls and disabled children residing in rural areas and other marginalized categories like SC, ST, OBC and Educationally Backward Minorities (EBM)[16]" (GOI, RMSA, 2009)

The major gap in the above stated objectives is the limited definition of the term 'access'. The emphasis is on physical reach to a school *per se* and increased enrolments. Equal academic access in all schools, in particular science education, which would be the key equity and equality measure, is missing. This latter gap, as we will illustrate later in the report, could potentially result in children from marginalised communities, especially girls who go to government schools, being denied access to science education. This may further deepen the educational hierarchies, which get exacerbated even more in the education continuum ladder.

The Mission does not have any specific focused strategy for girls, except separate toilets and hostels for them. Under the rubric of "equity", the mission proposes the following:
   • Free lodging/boarding facilities for students belonging to SC, ST, OBC and minority communities;
   • Hostels/ residential schools, cash incentive, uniform, books, separate toilets for girls;
   • Providing scholarships to meritorious/ needy students at secondary level;
   • Inclusive education will be the hallmark of all activities. Efforts will be made to provide all necessary facilities for differently abled children in all schools;

---

[15] CABE Committee (2005). *Universalization of Secondary Education.* New Delhi: MHRD
[16] Scheme of RMSA, MHRD, GOI 2009 – accessed from: http://planipolis.iiep.unesco.org/upload/India/India_Scheme_secondary_education.pdf

- Expansion of Open and Distance Learning especially for those who cannot pursue full time secondary education, and for supplementation / enrichment of face-to-face instruction. This system will also play a crucial role for education of out of school children.

With daunting goals such as universalization, it is a matter of some concern that RMSA seems to adopt a universal strategy, though its stated objectives are to bring marginalised groups, especially girls within such groups, within the ambit of secondary education. The lack of in-depth studies or analysis of gender situation with respect to different regions, social and economic groups to inform the development of context specific interventions that are imperative in addressing gender inequities is a major lacuna. Such detailed studies are limited and this is a glaring gap in the entire approach to girl's secondary education. There are lessons to be learnt from the elementary education sector, where detailed studies on equity across the country were the basis for developing specific strategies and interventions for diverse contexts and forms of inequity, which resulted in ensuring not only access but enhanced educational participation and retention of girls, especially from vulnerable and marginalised social groups.

Further in RMSA, increasing the numbers of women teachers at secondary and higher secondary level is not a core objective. However, under its equity interventions, increasing number of women teachers is included along with micro-planning, opening schools in areas with concentrations of marginalised groups, special enrolment drives and construction of separate toilets for girls. As mentioned earlier, education is a state subject and if GOI does not have specific directives on the issue of women teachers, it is left to individual states to decide whether or not to adopt a targeted approach towards the issue of women teachers. If one were to look back at the experience of elementary sector, sustained discussion and debate on gender issues at the elementary level, which was facilitated from the National level, resulted in similar processes being initiated at state levels as well. In the absence of a specific gender strategy, particularly for recruitment of women teachers in order to address issues of gender at the secondary level or a specific thrust on increasing the pool of women teachers, there is every chance that gender concerns in secondary education will vanish from governmental and public debate and discourse.

Research on secondary education in India, in general, is limited. Teacher absenteeism; time on task to measure teacher effectiveness; teacher unions; political participation and school governance have been some of the issues that have been analysed[17].There are very few studies that have expressly explored the dynamics between women teachers and gender and equity goal achievements. While the importance of women teachers, especially at primary level, has been central to many policy initiatives, a similar thrust is not evident at higher levels nor has much work been done on this issue. A much less studied aspect is the whole question of gender and science education for girls.

Government Reports and data bases such as the report of CABE Committee on Universalization of Secondary Education (2005), Eleventh and Twelfth Five Year Plan working group reports on secondary education and girls education, data bases such as National Sample Survey (NSSO) and School Education Statistics (SES) have provided information on the emerging scenario with regard to secondary education. Similarly, recent studies (The World Bank, 2009; Rajagopal, 2010; Bhog et al, 2011; Dewan et al, 2012; Ramachandran and Jandhyala, 2010[18]) have highlighted some of the emerging gender issues and concerns in secondary education.

---

[17] MHRD (2007), Sankar (2007), G Kingdon, et al (2010)
[18]The World Bank (2009). *Secondary Educaiton in India: Universalizing Opportunities.* Human Development Unit, South Asia Region; Rajagopal, S. (2010). Towards gender equitable education: Challenges and opportunities in secondary schooling in India. In *Engendering Empowerment: Education and Equality e-Conference;* Dewan, H., Batra, N., & Chabra, I.S. (2012). Mathematics up to the Secondary Level in India. In R. Ramanujan and K Subramaniam (Eds.) *Maths Education in India: Status and Outlook,* pp. 89-105, TIFR; Bhog, et al, (2011)

- There has been a spurt in secondary school enrolment. The estimated average annual increase in enrolment since 2000 is around 5.4%. This growth is seen as an outcome of effective promotion of elementary education under Sarva Shiksha Abhiyan, leading to a greater demand for secondary education.
- SES data for 2000-2005 indicates that the growth of women teachers at secondary level has been stable around 61-62 women teachers per hundred male teachers. The variations, however, across states is wide. In states such as Kerala, Tamil Nadu and Punjab, women outnumber men teachers. Some of the major states with less than 30 female teachers per 100 males are West Bengal, Tripura, Assam, Rajasthan, Gujarat, Orissa, with Uttar Pradesh (23) and Bihar (18) being very poor on this score. This obviously poses a huge challenge to promoting girls participation as well as in engendering the school domain in general.
- The feminization of subjects at the secondary level is only now being recognized. The lack of women teachers has an impact on educational choices for girls. A study in some tribal areas of Gujarat indicates that a large number of secondary schools do not offer any science courses, partly due to shortage of teachers and partly due to non-availability of laboratory equipment and facilities. Girls' schools often are known to offer only humanities and language courses, reflecting in some senses a very gendered mind set of the education system.

The situation in Rajasthan is no different as our preliminary analysis of secondary schooling showed. Girls' higher secondary schools, in most cases, do not offer science subjects and the reasons cited for this is the lack of sufficient resources to set up science laboratories etc. The urban rural divide is equally sharp with many more urban schools offering science options[19]. While no accurate estimates exist, discussions with officials in the government reveal that the proportion of women among math and science teachers is very low and confined mainly to urban areas. In fact, the availability of women science teachers could have implications for reducing the gender gap in academic performance. The World Bank Report (2009), cites a study that shows that girls taught by female mathematics teachers scored slightly higher than boys in the same classroom.

- A more insidious issue of societal attitudes towards girls in general and the ways in which it impacts girls' education, especially science education has been pointed out by Dewan et al (2012)[20].They say, "Access is not the only problem for girls and the general societal belief (also shared by teachers) is that the study of abstract ideas does not benefit girls and also that a girl's life priorities do not require her to take on anything as hard as mathematics and science. Frequently heard statements could be that 'X is just like a boy, she is so good in mathematics'. This attitude adds to the belief already implanted in them that they cannot learn mathematics (p.104)".
- Feedback from the field suggests that the presence of women teachers can be a pull factor especially in the case of Muslim minority. Transition to secondary school is easier with the presence of women teachers or girls only day or residential schools. The Twelfth Five Year Plan working group paper on girls' education pointed out that "opening of schools exclusively for girls appears to be necessary to overcome gender disparity. States have to undertake, on priority, school mapping for girls education, especially for Muslim girls".
- While the silence over issues of sexual harassment and abuse is deafening, some recent media reports have highlighted this major problem. Hence, the security concerns of parents and girls are allayed to an extent by the presence of women teachers.

Secondary education in the context of Rashtriya Madhyamik Shiksha Abhiyan: A Desk Review, Nirantar, New Delhi. and Ramachandran, Jandhyala (2010) Girls Secondary Education in India, prepared for MacArthur Foundation

[19] Personal communication from Dr. Leela Visaria, GIDS, Gujarat in 2010; The current study report by ERU on women teachers in Rajasthan also highlights that the situation in Rajasthan is similar.

[20] Dewan, H., Batra, N., & Chabra, I.S. (2012). Mathematics up to the Secondary Level in India. In R. Ramanujan and K Subramaniam (Eds.) *Maths Education in India: Status and Outlook,* pp. 89-105, TIFR

2.2. The Educational Backdrop: Status along the educational continuum in Rajasthan

2.2.1. Enrolment and representation

The Gross Enrolment Ratios (GER) along the educational continuum, nationally as well as in Rajasthan, highlights both gender as well as social gaps quite clearly. The cumulative impact of gender and social disparities is evident along this continuum. The All India Survey of Higher Education (AISHE)[21] estimates that girls constitute about 44.4% of total enrolment. The GER in higher education in India for 18-23 years age group is 20.4% (21.6 for males and 18.9 for females) and SCs constitute 12.5%, STs, 4.2%, OBCs 31.6 %, Muslims 4.5% and other minorities 2.1%.

In Rajasthan, as shown in Chart 1 and 2 below, there has been some improvement between 2004-05 and 2010-11. One could infer that the improvement in GERs at the secondary level reflects the impact of UEE and enhanced completion rates at the elementary level. However, as we move from primary (classes 1-5) to higher education we see continuing gender and social gaps and significant dropout rates at each successive level.

Chart 1: Gross Enrolment Ratio, Rajasthan 2004-05

* Source SES GOI 2004-05 & 2010-11, Higher education data from All India
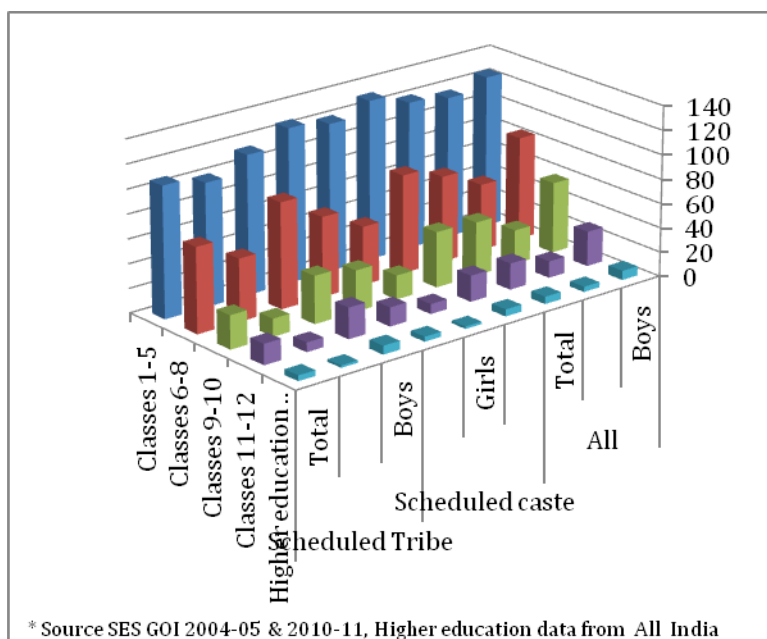
Data for 2010-11 indicates a sharp GER drop at the higher education level to just 14.9 for girls as a whole. The lowest higher education GER is for SC girls at 8.9 followed by ST Girls at 10.3. This is not a very surprising picture because the share of student enrolment in higher education, across all marginalized groups in Rajasthan, is less than their proportionate share in the population. This indicates continued persistence of educational backwardness among these communities. Our field data also confirms this educational backwardness. The numbers of SC, ST and Minority community girls in higher education institutions visited by the research team were equally negligible (refer to Annexure 4 for Chart 1, 2 and 3 for the data used to generate the charts are given below).

---

[21] Government of India. (2013). *All India Survey on Higher Education 2011-2012 (Provisional)*. New Delhi: MHRD

Chart 2: Gross Enrolment Ratio, Rajasthan 2010-11

*Source SES GOI 2004-05 & 2010-11, Higher education data from All India Survey of Higher Education 2012 GOI & CII, 2013
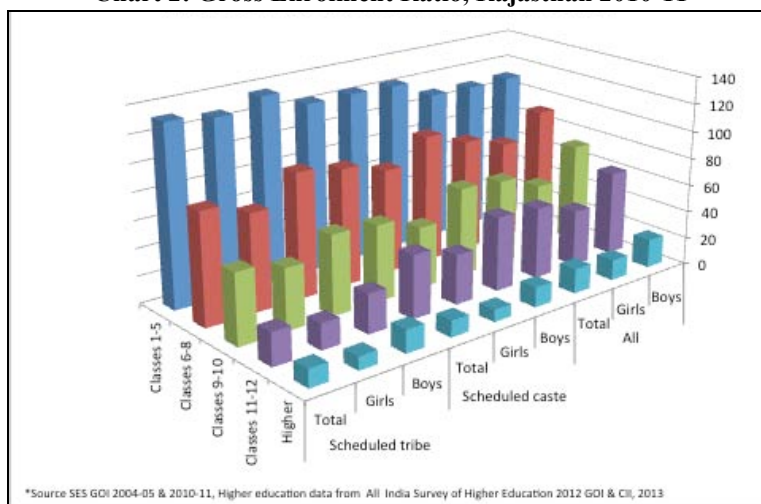
Clearly, the participation of marginalised groups in education beyond elementary level remains a major concern. The sharpest slide seems to be after completion of secondary and before higher secondary and higher education. This is true for girls in general and is more evident across marginalized social groups such as SCs and STs.

Improvements in GER at the elementary level and to enhance participation of marginalised communities took nearly 20 years of concerted efforts. But the work with respect to secondary and higher education is yet to begin in earnest. Huge gaps in girls' participation, both at secondary and tertiary levels of education, underscore the urgent need for targeted and purposive interventions to bridge these social and gender gaps.

Social and gender gaps in enrolment is but one aspect of the picture. The cumulative impact of these disparities gets sharper at the higher education level and disparities are reflected not only in enrolment but also at the faculty and staff levels as well. Just like in secondary level, women in Rajasthan are considerably under represented among faculty and staff in higher education institutions in comparison to male faculty. Further, there is a representation deficit both in participation and at faculty level for all marginalized social groups. For instance, the Gender Parity Index (GPI) in higher education for Rajasthan is at 0.72, lower than the national average of 0.88. Similarly, GPI for SCs and STs is also significantly lower than the national level (SC at 0.61 against the national GPI of 0.88 and ST at 0.58 against a national GPI of 0.74)[22]. On the other side, representation of SC, ST and OBC among Non-Teaching Staff is higher in comparison to the teaching staff, which is reflective of a) a broader social hierarchy and b) lack of requisite educational qualifications among these social categories to enable them to enter socially higher placed profession of teaching (see Annexure 4 for Chart 3).

---

[22]Government of India (2013). *All India Survey on Higher Education 2011-2012 (Provisional).* New Delhi: MHRD

Chart 3: Gender and social profile of students and faculty in Rajasthan

* Source: Census, India HDR 2011 and All India Survey of Higher Edun
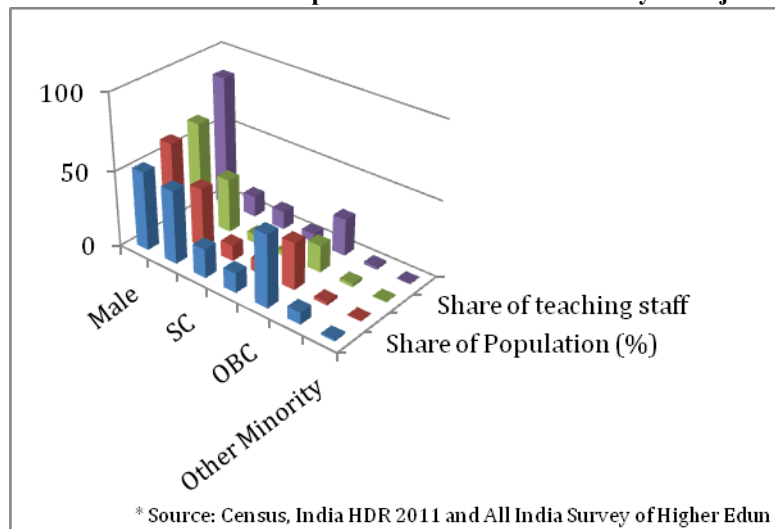
As pointed out earlier, the deficit in gender and social representation leads back to the core problem at the secondary school level, the first gatepost to be crossed in the journey to becoming a secondary school teacher.

2.2.2. Access to secondary and higher secondary education
The ratio of elementary to secondary and secondary to higher secondary schools gives us a picture of the challenges in ensuring access. In the World Bank report on secondary education (2009) it has been commented that, "Access to secondary education is highly inequitable, across income groups, gender, social groups, geography, and states...In some states (e.g. Rajasthan, Uttar Pradesh, Madhya Pradesh) there is more than a twenty-point percentage gap in enrolment between boys and girls. Secondary attendance of the general population is 80 per cent higher than that for STs, SCs and Muslims. The challenges ahead of girls' secondary education are further exacerbated by the basic issue of access itself, where Rajasthan along with Bihar, Uttar Pradesh, Chhattisgarh and Jharkhand have a lesser number of secondary schools per 100 sq. kms than the national average of 4 per 100 sq. kms[23]".

Overall, in Rajasthan the situation is below the national averages. The ratio of elementary to secondary schools is 2.41 in Rajasthan, which is lower than the national average of 2.67. At the secondary to higher secondary level, the ratio of 2.90 in Rajasthan is slightly better against the national average of 2.42. It is, however, the density of schools per square kilometre that would be a key determinant to assess the issue of access to secondary and higher secondary schooling, particularly for girls. In Rajasthan, access to secondary level education is at 0.68 per 10 sq. km. radius, which is marginally higher than the national figure of 0.61. However, at the higher secondary level access is at 0.23, which is lower than the national average of 0.25[24].

In Rajasthan, as elsewhere in the country, the focus and thrust on strengthening secondary school sector is a fairly recent phenomenon. Unlike other states in the country, Rajasthan has only two types of schools, schools that are run by government and schools that are under private management receiving no government aid or grants.

---

[23] The World Bank (2009). *Secondary Educaiton in India: Universalizing Opportunities.* Human Development Unit, South Asia Region
[24] NUEPA, Rajasthan SEMIS data, 2010-11

With the launch of the Secondary Education Mission, i.e. RMSA in 2006-07, however, an increase in the numbers of secondary schools has accelerated (see Table below). The 5-year period between 2006-07 and 2010-11 saw a hike of nearly 77% in the numbers of secondary and senior secondary schools[25] (see figures below, refer to Annexure 4 for Chart 4).

Chart 4: Number of Secondary and Higher Secondary Schools, Rajasthan
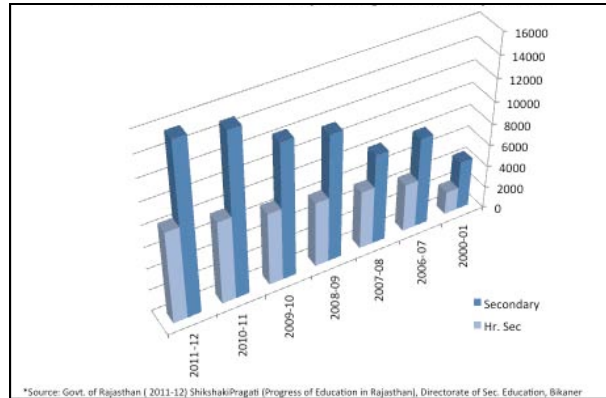
*Source: Govt. of Rajasthan (2011-12) ShikshakiPragati (Progress of Education in Rajasthan), Directorate of Sec. Education, Bikaner

It is important to note that in Rajasthan the government remains a significant provider of secondary and higher secondary education. In 2010-11, 51.81% of secondary schools and 37.16% higher secondary schools were government schools[26]. Unlike other states where government aided schools are also important educational providers, in Rajasthan the responsibility of provision of secondary education for marginalised groups, in particular, rests squarely on the government. The responsibility of ensuring equity in access also lies equally with the government. Access measured by distance to a secondary school clearly brings out the disadvantages in rural and remote areas. In urban areas, physical access is assured because only a very miniscule proportion of schools are located more than 5 km away from the residence of the students. See figure below (refer to Annexure 4, Chart 5) for details on distances across rural and urban areas in Rajasthan.

---

[25] Planning Commission, Rajasthan XIIth plan, Ch20 on Education
[26] Government of Rajasthan (2011-12) *Shiksha ki Pragati* (Progress of Education in Rajasthan), Directorate of Secondary Education, Bikaner

Chart 5: Access to higher secondary school

Deepa Sankar(2011) Participation in India: An analysis of the NSS 64th Round Data. Discussion Paper, Report No.33, South Asia Human Development Unit, World Bank, India
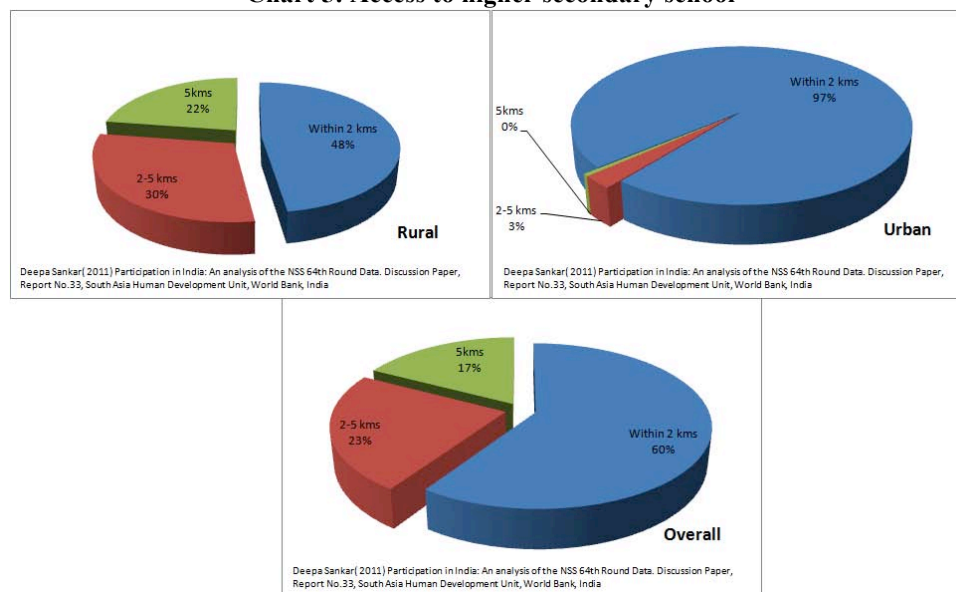
Access, however, remains a major challenge in some difficult areas/ districts such as Barmer where the distribution of schools is in favour of urban and peri-urban areas. Field notes further highlights that, *"The distribution of schools also needs to be scrutinised critically, particularly in the border districts...The poor availability of secondary schools and low enrolment of girls in the border blocks of Chohtan and Shiv the situation is (bad) worse regarding number of higher secondary schools and percentage of girls enrolled in classes 11th and 12th"[27]*.

An increase in the numbers of schools improves physical access, but still leaves the thorny issues of social access untouched. In a state like Rajasthan, which has strong conservative cultural traditions, social access issues are equally important in determining access**.** An NCERT study (2010-11), that explored barriers to secondary education of Muslim girls validates the finding of this study that social distance exerts as important an influence on educational participation as physical access[28]. NCERT study (2010-11) showed that both non-availability of secondary schools, as well as non-availability within areas perceived by communities as "safe" serve as major impediments to Muslim girls' secondary education.

In this study for instance, the location of the secondary school just beyond the defined boundaries of the Muslim *mohalla* (neighbourhood) in Ajmer meant that girls' access to the school was restricted. The situation was strikingly different in rural school located in a tribal area. In Baran district, one of the key determinants of enhanced access and participation of girls from the tribal community was location. The presence of girls only secondary school situated in the heart of a tribal concentration area meant that many more girls from the tribal community were in school. Quite clearly, a detailed mapping of where secondary schools need to be opened or upgraded is required to address both locational disadvantages as well as perceived social distances from the mainstream.

In Rajasthan, by and large, higher secondary schools are known as boys' schools (in Rajasthan the term Boys Schools is used for Co-Ed schools). The term boys' school is in a sense a misnomer because girls

---

[27] Field notes, Barmer District, 2013

[28] NCERT (2010-11). *A study of barriers in secondary education (classes IX & X) to Muslim girls education.* The study conducted a survey in 4 districts of Rampur, Bijnor, Barabanki and Baharaich districts of Uttar Pradesh

are admitted either if a girls' only higher secondary school is not accessible or girls want to pursue specific subjects such as science/ math that are offered only in boys schools. In all data sets, however, they are referred to as boys' schools, inadvertently, perhaps reflecting an extant bias.

The number of girls' only secondary schools is very limited in the state as a whole and, which was evident in the sample districts as well. In 2011-12, for instance there were only 557 girls' only secondary schools against 15150 for boys in the state. <u>At higher secondary level, there are 779 girls-only schools against 7741 boys schools</u>. If one looks at the sample districts, figures are even more skewed with girls only secondary schools being as few as 5 in Barmer district (largest in area). This issue merits particular attention especially in a state such as Rajasthan where girls' education is challenged and obstructed by a traditional society that generally has an adverse view of girls and women.

Table 8: Secondary and Higher Secondary schools in sample districts

	"Boys" secondary schools	Girls secondary schools	"Boys" Higher secondary schools	Girls Higher secondary schools
Rajasthan	15150	537	7741	699
Ajmer District	422	24	221	48
Barmer District*	445 336 Govt. &109 Pvt	5 (3 Govt. & 2 Pvt)	125 (72 Govt. & 53 Pvt)	12 (All Govt.)
Baran District	189	8	64	13
Source: Directorate of Secondary Education, Bikaner 2013* Field notes				

During the course of discussions with education officials, interesting insights were provided on gender issues. In one district, we were informed that, "*authorities are no longer thinking of separate schools for boys and girls. We are moving in the direction of co-education to foster a change in mindset*"[29]. We were informed that that this is the only way to address gender issues in schooling. The assumption seems to be that over the past 2 decades, the whole gamut of gender issues in the elementary sector including community awareness, access, textbook renewal, teacher sensitisation etc. have been effectively addressed by achieving gender parity at the elementary level. Hence, at the secondary level coeducation is not a problem. Globally, co-education is being advocated as the direction in which school education needs to move. Even India seems to have accepted this position fairly uncritically.

While one would tend to agree that co-education right through the entire schooling cycle from primary to secondary is a desirable way of ensuring a mutual sensitivity between genders, one cannot afford to ignore the wider social context within which schools are located in some states / regions in our country. Later in the report, views of various groups, on the extent to which co-education especially at the secondary level is viable or desirable and the possible adverse impacts it may have on girls secondary education participation and in the long-term on their higher education and employment including as teachers, has been highlighted.

2.2.3. Infrastructure in sample schools
Access to a school is only one side of the coin. Quality of teaching and learning and the basic infrastructure available are equally important. In the elementary education sector, several evaluations have commented on the poor infrastructure in government schools, especially availability of safe drinking water and toilets, especially toilets for older girls. The limited field sample of this study shows that the picture is not very different in the case of secondary schools. As Table 9 below shows, basic infrastructure such as buildings, classrooms, blackboards, drinking water and poorly maintained toilets are in place. What is of concern is that in all secondary schools, libraries are poorly stocked and not in

---

[29] Field notes Ajmer district

use, laboratories are in disarray and again, not in use. It is now acknowledged that all these issues have a direct impact on the quality of education being imparted – having no access to libraries and science labs affects the overall learning environment. Children from poor families do not have access to such resources in their homes or in their neighbourhood. This situation in government secondary schools raises serious questions on the quality of education being offered to its main clientele, i.e. marginalised poor. What it calls for is prescribing norms for the basic minimum functional facilities to be available in all government schools and resources being accordingly allocated. This could be a key effective equity measure that needs to be considered.

Table 9: Status of Infrastructure in sample schools

	Barmer		Ajmer		Baran		
	Urban	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	
Own building	Yes	Yes (donated land, new building, well ventilated)	Yes	Yes	Yes	Yes	Yes, all schools had own buildings
Classrooms	8	12	23	13		4	2 schools had shortage of classrooms, 1 urban and 1rural - in Baran, ST area
Blackboards	Yes	Yes	Yes	Difficult to write on. All need to be replaced	Yes	Yes	All schools had them, but not in very good condition. In one rural school in Ajmer - they were really bad.
Furniture	Hardly any. durries for sitting	Yes	Iron tables and chairs	Tables, benches, chairs	Seating on the floor	Seating on the floor	Furniture was there in only 2 schools for students. Students compelled to sit on the floor.
Library	Yes. Not used	Yes. Not used	Yes. Not used	Yes. Not used. Very few books	Some books purchased	3000 books available but no separate room for library	Only 1rural school had a good large library. Others had few books, but in all schools, books were not readily available for use by students.
Laboratory	Apparatus and computer unpacked but not used	No. Science not offered	Old apparatus. Lab dark and dingy	Not used	No. 10 computers available some were not working. Science equipment purchased	No. But science equipment available	1 school (girls) did not offer science. Science apparatus available in 4 schools, in 1 apparatus was old, in 2 it was new, and in one it was not used. 4 schools had no science labs.
Playground	Poorly maintained, not usable	No	No	Not usable overgrown with grass		Some sports material. Seems unused	4 schools had no sports equipment. 2had some sports materials but it was not used. One school some sports activities
Drinking water	Yes	Water in pots. Girls bring from home.	Yes but girls asked to bring their own water	Yes but children bring from home	Yes. Hand pump and tank for water storage	Yes	Water was available, but quality was an issue in all schools. In 3 schools, children carried water from home.
Toilets	2 but very dirty. Separate for staff	10 but not clean. Separate for staff	Yes and also one separate for staff	Separate for boys. One for women teachers and girls	Yes but in poor condition		Separate toilets for staff in 5 schools. Toilets in good number in 1 school, other wise only1 toilet. Cleanliness and number of toilets an issue in 4 schools
Source: Field observations and notes 2013							

2.2.4. Access to Higher education
Gaps in secondary schooling access, especially among girls, are equally mirrored at the higher education level as well. Rajasthan is one of the top 6 states (along with Uttar Pradesh, Andhra Pradesh, Maharashtra, Karnataka, Rajasthan and Tamil Nadu) with the highest number of colleges. Rajasthan has 2652 colleges with a density of 32 colleges for 1 lakh (1,00,000) population. Around 21% of these are concentrated in Jaipur district alone, again indicating an uneven spread (urban spread) of higher education institutions across the state[30].

An analysis of higher education institutions done by National Academic Accreditation Council (NAAC), in 2008 highlighted the uneven distribution and showed the concentration of higher education institutions in just 7 districts of Rajasthan (Sikar, Kota, Ajmer, Dausa, Sriganganagar, Jaipur and Jhunjhunu)[31]. Further, the concentration in urban and peri-urban areas exacerbates access for poor and marginalised girls in particular.

The situation was not different in the sample districts as well. In Barmer district, for instance, there are 2 Post Graduate Government colleges and 4 Undergraduate Colleges (2 women and 2 co-ed) in the whole district and all of them are clustered in the urban and peri-urban areas, thereby making access a major problem in large parts of the district.

2.2.5. Access to pre-service teacher education in Rajasthan
Teacher education and training in Rajasthan is mainly in the private sector with the government running very small number of colleges. As in the case of secondary schools there are currently no aided teacher training institutes. All training institutes are affiliated to various universities. Since 2007, there has been an expansion of self-financed colleges of education being opened across Rajasthan and the fee prescribed for the course is Rs.22,500/- (including insurance premium Rs. 50) as per the Rajasthan state Government norms. There is a also Regional Institute of Education situated centrally at Ajmer that conducts a 4-year degree (what does it include) course at the end of which a student also gets a degree in education.

In addition, a teacher education degree can be acquired through the distance mode as well. Vardhaman Open University (Kota) conducts distance mode B.Ed. course and MA Education. Students also enrol in the B.Ed. and MA Education programmes offered by Indira Gandhi National Open University (IGNOU). IGNOU also conducts a B.Ed. programme through its Study Centres that have been established at various places in the state and it has recently started an MA in Education Programme.

The number of seats in teacher education institutions and their distribution across subjects are fixed, with girls-only colleges having 100 seats and co-ed colleges 125 seats. Stream-wise distribution of these seats for a batch of 100 is as follows: 70 for Arts, 20 for commerce and 10 for science. This stream-wise allocation of seats in favour of Arts subjects is a clear reflection of the subjects that are being offered at the secondary level. There seems to be a growing demand for more seats in B.Ed. colleges, as reported in Baran district. The principal of an urban B.Ed. College reported that there were always more applicants than seats available. In the college catchment area, there would be at least 200 more girls wanting to do a

---

[30] Government of India (2013). *All India Survey on Higher Education 2011-2012 (Provisional)*. New Delhi: MHRD. In this survey only affiliated and constituent institutions of Central and State Universities have been counted as colleges. Constituent units of deemed/private universities, Off-campus centres and Recognised centres have not been counted as Colleges.
[31] National Assessment and Accreditation Council (2008). *An Analysis of Peer Term Reports of Accredited Institutions of Rajasthan – Issues and Strategies for Quality Enhancement.* Bangalore: NAAC

B.Ed. This increase in interest and demand is because of government recruitment of teachers through the Rajasthan Provincial Services Commission (RPSC).[32]

Admissions to the B.Ed. programme are made on the basis of state-level admission test called Pre Teacher Education Test (PTET) conducted by the state university under the directions of the state government. The examining bodies for secondary teacher education courses are 6 State Universities, one State Open University and four institutions deemed to be universities. Since 2002, the government has mandated that a common syllabus be followed in all teacher-training institutes.

Currently there are 778 teacher-training colleges in the state out of which 5 are government-managed colleges of education. Among these, 40 institutions provide M Ed course. One-third of these colleges are exclusively for girls and remaining, which are co-education colleges, have a prescribed ratio of 70:30 for male to female students.

2.2.6. Spatial Distribution of Teacher Training Institutes

The distribution of training institutes is uneven and skewed. The spatial distribution follows the pattern of higher education in general with a concentration of B.Ed. colleges in just 10 districts. The numbers of colleges range from one in Pratapgarh district, 2 in Dungarpur, 3 each in Baran and Jaisalmer with the highest number 134 in Jaipur. The second and third highest districts are Sikar with 78 and Alwar with 65 teacher-training colleges. In the 3 sample districts, for instance, the variation is vast with 18 B.Ed colleges in Ajmer district and Baran and Barmer having just 3 and 4 respectively (see Annexure 4 for details on spatial distribution of B.Ed Colleges).

2.3. Participation in secondary schooling and higher education

The importance of government managed schools for the education of the poor, girls and especially girls from SC/ST groups is clearly evident. This is a trend that has been widely commented on for other parts of the country as well[33]. In Rajasthan for instance, in 2011-12, out of a total enrolment of 41.3% of girls at the secondary level nearly 60% were in government schools. The numbers are significantly higher for SC and ST girls at 69.49% and 79.2 % respectively and this trend continues at the higher secondary level as well (refer to Annexure 4, Chart 6).

Chart 6: Social profile of enrolled students in secondary schools, Rajasthan 2011-

*Source: GOR Shiksha Ki Pragati, 2011-12, Board of Secondary Education
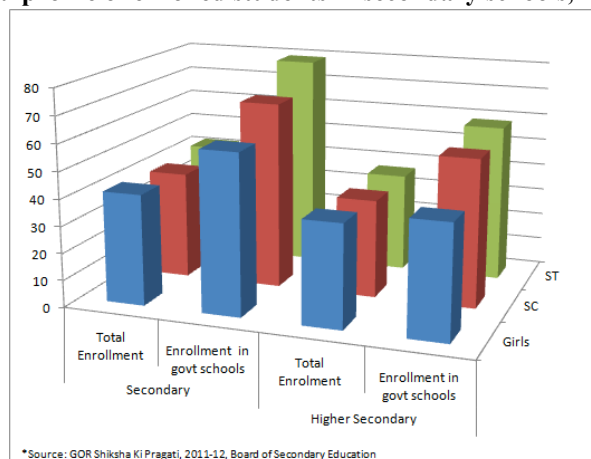
[32] Field notes, Baran district, 2013
[33]Ramachandran, V. (2004). *Gender and Social Equity in Primary Educaiton: Hierarchies of Access (Ed.)*. New Delhi: Sage Publications

2.3.1. Enrolment in sample schools

The research teams tried to get data for a 3-year period in all sample schools from 2010-2013. However, complete data for all the schools surveyed was not available[34]. In Baran and Barmer districts, information for schools in both rural and urban sites was available while in Ajmer data for urban school was difficult to access despite several attempts. In Baran district, the rural school, which is in a tribal majority block, out of a total enrolment of 78 in Class X, 27, were ST girls, 25 SCs, 16 OBC girls and 10 girls were from the general category. As mentioned earlier, location of the school in the heart of tribal concentration seems to have a positive impact on the participation of girls (refer Annexure 4 for Chart 7).

Chart 7: Enrolment in Sample Schools, Baran District
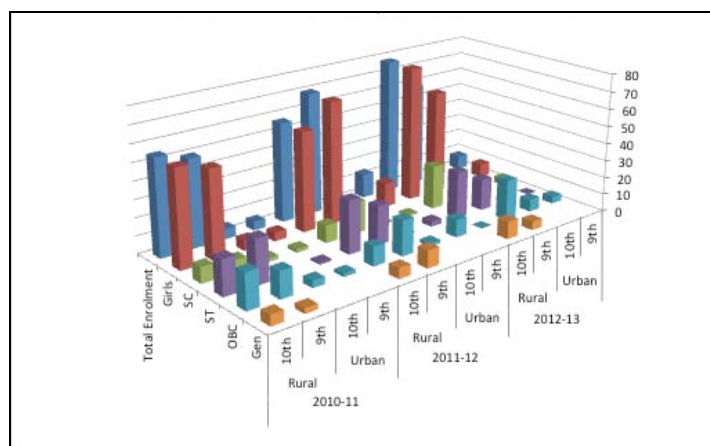
Not surprisingly, the enrolment of girls in 2 urban schools in Ajmer and Barmer showed a high representation of the general category. In the case of Ajmer school, high ST figures can be misleading as they represent not ST's in general but ST Meenas who have made tremendous / noticeable strides in formal education and government employment in the last three to four decades. It is quite obvious that for universalization of secondary education there is a need to go below the generic social categorizations to reach out to the most excluded.

Table 10: Social profile of enrolment in 2 urban government girls' senior secondary schools

	2012-13	Ajmer		Barmer	
Classes		9th	10th	9th	10th
	Total Enrolment	207	227	169	161
SC	Girls	4	5	43	39
ST	Girls	55	56	3	1
OBC	Girls			67	38
Gen	Girls	111	114	56	83
Muslims	Muslims	37	52	0	0

---

[34] The non-availability of basic data about schools, teachers, enrolment and subjects offered in one place is a serious issue – that affects planning and management.

2.3.2. The Barmer story

The field study highlighted rapid mobilization and expansion of the OBC community and its active promotion of girls' education, which is illustrated by the enrolment figures. In the district as a whole, enrolment of OBC girls at secondary and senior secondary levels was highest in 2012-2013, a trend that, as officials pointed out, has been gathering momentum over the past few years.

Table 11: Social profile of girls enrolled in secondary and senior (higher) secondary, Barmer District 2012-13

	Secondary (IX & X)	Sr Secondary (XI & XII)
SC	2626	770
ST	231	54
OBC (Jat included)	14195	4507
General	2719	1489
Source: DEO, Barmer, 2013		

This trend is closely linked to the overall social and political mobilization of the Jat community (categorised as OBC in Rajasthan) as a whole, which is reflected in their proactive and positive attitude towards women and girls' education. For instance, the community has established hostels and colleges to enable girls to study beyond secondary school. Over the past few decades, the Jat community has engaged in an aggressive struggle for reservation in government jobs. The promotion of girls' education is part of this overall strategy to ensure that their women get a large share of teaching jobs in government schools. In Rajasthan, a similar trend was visible among the ST Meena community during 1980s and 1990s. However, the lack of such social and political mobilization among the very backward ST community, the Sahariyas or the SC community gets reflected in the poor education participation rates among their girls.

Box 4: Jat community and girls education

During various interviews and FGDs, everyone pointed out the perceptible change in social values, especially among the OBCs (Jat in this area). Even among teachers (men and women), most of them are from the Jat community (Chaudhary). They have emerged as the dominant social group that is conscious about socio-economic upward mobility. Apparently, their social mobility has increased (since the early 1990s when the OBC reservation issue emerged as an important issue nationally). Jat community were categorised as OBC in Rajasthan so that they could avail benefits of caste-based reservations in Government jobs/schemes. It seems that they are willing to give up their tradition occupations of livestock rearing and farming for government jobs. The ADPC of RMSA informed that in OBC dominant blocks 50% plus girls in schools are from this community. The SCs/STs and Muslims are still way behind, even though some Muslim groups are included in the OBC category.

Having become economically better off in recent years they are pushing for girls' education, emulating the Jains. They want their daughters to complete secondary education and college to take up jobs, preferably as teachers, as Patwaris, police constables, Anganwadi supervisors etc., so that they can both work and stay close to home or at home.

The upward mobility of girls in education among the Jat community has become visible in Barmer city, which is evident by the establishment of girls' hostels by the community through collective efforts. It was reported that there were 2-3 hostels for girls in Barmer town, to enable them to complete secondary education, that were run and managed by the wardens selected by parents. Each housed about 100-200 girls, where parents paid for their food and boarding and spent extra money on coaching for subjects such as science / maths. They had even started a similar hostel for boys separately[35]. Among OBCs, girls are steadily moving from UPS to secondary level, with many of them moving on to college. This was even reported by the teachers in schools, UG and B.Ed colleges.

Source: Field notes (based on discussion with community leaders, teachers and officials, Barmer, August 2013).

---

[35] The team could not visit any hostel during the field visit, as there was a string of holidays in the week, so the students had gone home.

2.4. Enrolment in the sample undergraduate colleges and B.Ed colleges

Enrolment trends at the collegiate level hold no surprises. The participation from SC, ST and Muslim communities is very negligible and the social hierarchies of the state are reflected in the pattern of enrolment from the general and OBC communities pursuing higher education. Furthermore, the enrolment of girls from marginalized communities is generally very low whether it is a rural or urban location or girls-only or a co-ed college.

Table 12: Enrolment at the under-graduate level, Barmer District 2012-13

Social Group	Boys	Girls	Total
SC	703	178	881
ST	131	14	145
OBC	1467	470	1937
Minority	72	12	84
General	935	1046	1981
Total	3308	1720	5028
Source: DEO, Barmer			

Table 13: Enrolment at the under graduate level, JNV University, Jodhpur (2012-13)

Social Group	Boys	Girls	Total
SC	3967	1592	5559
ST	615	118	733
OBC	7864	4112	11976
Minority	475	305	780
General	4643	5485	10128
Total	17564	11612	29176
Source: JNV University, Jodhpur			

Let us look at the situation in Barmer district as an example. In Barmer district, all colleges are affiliated with the JNV University, Jodhpur. The enrolment at the UG level, both at the university level in general and in Barmer district, shows that the OBCs out number all other social categories, although among girls the general category has higher number of enrolment. This is in keeping with the overall educational mobilisation among the OBC community as mentioned earlier in the report (refer annexure 4 for Chart 8 and 9).

Chart 8: Undergraduate enrolment by social group and gender, Barmer District 2012-13
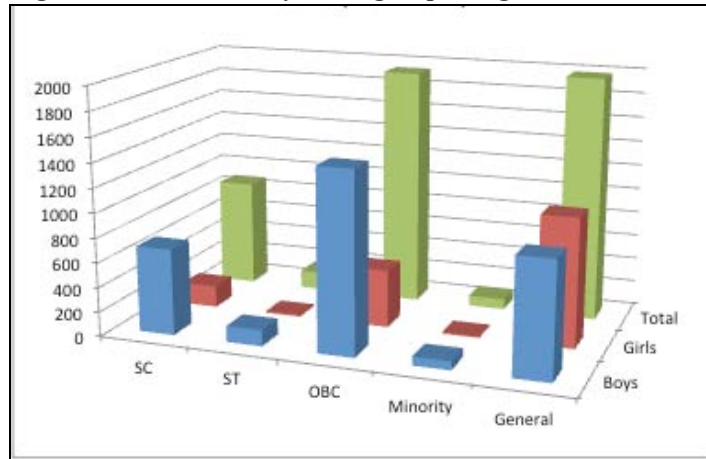
Chart 9: Undergraduate enrolment in JNV University Jodhpur 2012-13
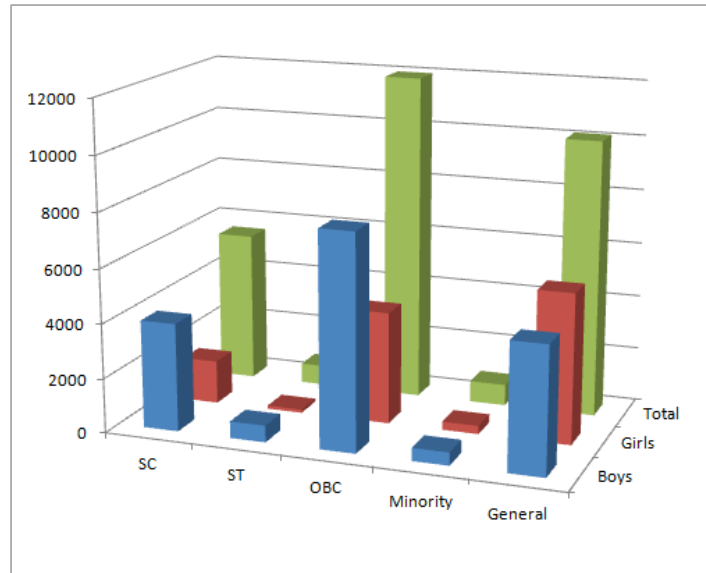
Table 14 below shows the number of SC and ST girls enrolled in the B.Ed. colleges in the 3 sample districts. In the rural girls' college in Baran district, out of 100 students, there were 20 SC and 12 ST girls. In the urban college in Baran, out of 99 students, 31 were girls (4 SC and 12 ST girls) with the rest from OBC and general category. In Barmer, in the 2 urban colleges surveyed, there were 21 SC and 9 ST girls out of 120 students in one college and in the other college, there were only 9 SC and 1 ST girl out of a total enrolment of 98. Similarly, in the co-ed college, there were only 18 girls (6 SC and 1 ST) out a total enrolment of 92. In the urban co-ed college in Ajmer district, where 25 out of 85 students were girls, only 5 were SC and 2 were ST girls. In the rural girls' college, on the other hand, there are many more SC and ST students (33 SC and 16 ST). To some extent, one could infer that in the rural sample of Ajmer, NGOs such as Doosra Dashak's engagement with girls' education issues has been effective, which had an impact on an increased participation from SC and ST girls.

45

Table 14: SC/ST girls in sample B Ed colleges for 2012-13

District	Students	Rural SC	ST	Students	Urban SC	ST
Ajmer	All girls, 171	33	16	Co-ed, 25 girls out of 85 students	5	2
Baran	100 students	20	12	99 Students	2	12
Barmer	Co-ed, 92 18 girls	6	1	120 co-ed 98 all girls	21 9	9 1
Source: Field notes						

2.5. Conclusion

The focus on universalization of secondary education in the Twelfth Five Year Plan (2012-17) as well as in RMSA is a positive step forward in creating the policy and programmatic framework within which the challenges of secondary education can be addressed. Meeting the ambitious targets of enhanced GERs at the secondary and higher secondary levels and improving retention by 2017 begs the question of how this will be achieved when one looks at the huge gender and social gaps. Despite RMSA spelling out its objective to bring marginalised groups, including girls within the ambit of secondary education, at present there is a lack of a well thought out strategy to achieve this objective, either in terms of a specific gender strategy or any policy to increase the numbers of women teachers at the secondary level.

In Rajasthan, the challenges to universalise secondary education are even more given the fact that the state faces a huge social and gender deficit in enrolment in secondary and higher education. The government is a key player in the provision of secondary education. Therefore, the responsibility of the government to meet this challenge is all the more imperative especially in Rajasthan because girls and boys from the marginalised communities primarily go to government schools. Unless their participation and completion rates are consistently improved, social and gender deficits in higher education will continue.

There are major issues that need to be considered as well, in ensuring access and in providing a school well equipped to meet the requirements of secondary and especially higher secondary education. The numbers of girls only schools is very small, which will likely make the achievement of the gender and equity goals that much more difficult.

The need for some basic standard in the facilities available in government schools is another issue that needs attention. Our field study for instance showed that the poor quality of infrastructure is similar to the situation in government elementary schools. If the spirit of the stated objectives of RMSA on equity is to be realised, then effective equity measures need to be put in place. The easiest measure could be ensuring that the basic infrastructure such as libraries and laboratories among others are available, functional and used in all government schools.

Part 3: Insights from the study

3.1. Status of women teachers at the secondary and collegiate level

3.1.1. Women teachers at secondary level in the sample districts

The availability of women teachers at secondary level remains an important area of concern in Rajasthan. Shortage of teachers, in general, at secondary level is due to delays in recruitment, which are often a result of pending cases challenging the recruitment processes and the lack of a clear policy on time bound recruitments. Moreover, even when teachers are recruited, fewer women get selected due to various reasons, despite the fact that there are no procedural or legal hurdles in appointing women. The cumulative impact of gender inequalities at elementary, secondary and college levels ultimately determines the availability of women teachers. Further, there is lesser number of women teachers available for science and maths teaching. Given the social and gender relations prevalent in the society where social and gender subordination are embedded in the social fabric, the issue of women teachers takes on a particular significance, which will be delineated in this section.

The deployment pattern of teachers shows that the presence of women teachers is much better in urban areas. However, there are sharp variations across districts, and even within districts. Overall, the numbers of women teachers at secondary level has increased at a very slow pace. In 1990-91 the percentage of women teachers at secondary and higher secondary level (all managements) was 22% and 25% respectively. In 2011-12, this percentage improved slightly to 28.9% and 29.3%[36].

Except for Ajmer, which has a significantly higher percentage of women teachers, the situation in backward districts such as Barmer and Baran is rather poor. Also, the higher percentages of women teachers at higher secondary level is due to the location of these schools in primarily urban, semi-urban areas or areas that are well connected by transport. Table 15 below shows Barmer as having the lowest percentage of women teachers at both secondary and higher secondary levels, while Ajmer has a much higher percentage. This is perhaps because it is a more urbanised and developed district.

Table 15: Women teachers at the secondary level in government schools in sample districts, 2011-12

District	Secondary level		Higher secondary level	
	Total No.	% women	Total No.	% women
Ajmer	1740	39	1792	43.4
Baran	446	21	446	18
Barmer	681	8	744	16
Rajasthan	31521	21.5	32711	26
Source: GOR, Shiksha ki Pragati, Board of secondary education, 2011-12				

As one intersects gender with social category, gaps between social classes as much as between genders stand out sharply. As Table 16 shows, the presence of women teachers from SC and ST communities is strikingly low. In Rajasthan, among the women teachers at the secondary level, only 7.7% are SC and 4.8% are ST women teachers. This disparity is reflected at the higher secondary level as well where only 7.44% are SCs and 3.73% are STs among women teachers. It may be pertinent to point out here that the low representation of SC and ST women teachers is mirrored in the case of SC and ST men as well. Among the 3 sample districts, the situation seems worst in Barmer, which has 3.8% of SC and ST women

---

[36]GOR, Shiksha ki Pragati, Board of Secondary Education, 2011-12

teachers respectively at the secondary level and 4.27% SC and 1.7% ST women teachers at the higher secondary level.

Table 16: Social profile of teachers in government secondary and higher secondary schools in sample districts

	Secondary			Higher Secondary		
	Total Women	SC women	ST women	Total women	SC women	ST women
Ajmer	670	79	18	779	85	11
Baran	94	6	8	80	8	7
Barmer	52	2	2	117	5	2
Rajasthan	6789	529	329	8548	636	319
Source: GOR, Shiksha ki Pragati, Board of Secondary Education, 2011-12						

The very low representation of SCs in general and almost miniscule representation of SC and ST women at the secondary level highlights the long road ahead in bridging social and gender disparities. This has a cumulative impact on the higher education continuum as well. The wide gap between a developed district such as Ajmer and backward districts such as Baran and Barmer points out that there is a need for mapping disparities between districts and between social groups, which then should become the basis for evidence and need based allocations and appropriate planning.

3.1.2. What the sample schools tell us

At the school level, one gets a sharper picture of the extent of disparities and gaps. The divide between urban and rural areas is very clearly evident as the status of vacancies in sample schools in 3 districts shows. 42 out of the 129 positions in 7 schools were vacant at the time of this study. There are many more vacancies in rural schools, irrespective of whether it is a girls-only or co-education school. See Table 17 for the status of vacancies in the sample schools.

Table 17: Teacher availability in sample schools

				Post filled (Regular)		Post filled (Contractual)	
		Post Sanctioned	Post Vacant	Men	Women	Men	Women
Ajmer	Urban Govt. Girls Sr. Sec.	44	8	nil	36	nil	2
	Rural Govt. Girls Sec.	29	11	5	13	Nil	Nil
Barmer	Urban Govt. Girls Sr. Sec.	24	5	0	19	5	0
	Rural 1 Govt. Sr. Sec. (co-ed)	16	10	6			1
	Rural 2 (girls only)	Info not available	Info not available	3	0	3	0
Baran	Urban (Govt. Girls Sr. Sec.)	6	1(principal)	1	5		
	Rural (Govt. Sr.Sec. girls)	10	7	1	2	2	1
Source: Data from sample, 2013							

Across the country, the situation is the same with vacancies in rural areas being much higher than in urban areas. Women teachers that we interacted with cited family responsibilities as the key reason for not opting for rural postings. Even if they are posted in rural areas, they had to struggle to get posted to an urban or semi-urban area. Generally, women teachers in the reproductive age or with younger children do not prefer to go rural areas.

3.2. Social and gender profile of faculty at the undergraduate and B.Ed college level

As one moves onto the collegiate level, gender and social deficit among the faculty seen at the secondary level gets more accentuated. Across the 7 Under Graduate colleges surveyed in the 3 districts, irrespective

whether a college was a co-ed or girls only college, there were more men than women faculty, except in the urban girls' college where there were more women than men.

While we were not able to get disaggregated data for the faculty of Ajmer colleges, in both Baran and Barmer, very poor participation of girls from SC and ST communities in secondary and collegiate education is reflected at the faculty level as well. In the sample colleges selected in Baran and Barmer, there were only 4 faculty from SC and ST communities out of which 2 were SC men, 1 SC woman and 1 ST man. There were no ST women faculty visible/present in these districts.

Table 18: Social profile of faculty in undergraduate colleges in the sample

		Ajmer		Barmer		Baran	
		Urban (co-ed)	Rural (co-ed)	Urban (girls)	Rural (girls)	Urban (girls)	Rural (co-ed)
TOTAL	Total Teachers	206	8	12	14	21	6
	Men	84	7	9	7	9	4
	Women	122	1	3	7	12	2
SC	Men			0	0	1	1
	Women			0	1	0	0
ST	Men			0	0	1	0
	Women			0	0	0	0
OBC	Men			3	5	1	
	Women			0	0		1
GEN	Men			6	2	7	3
	Women			3	6	11	1
Source: Field notes, 2013							

The sharp disparity among the faculty is almost inevitable at the B.Ed. level as well. The pattern of very low representation of SC and ST community in general and the near absence of any SC/ST women (except 1 SC woman in Ajmer) was equally evident in the 7 B.Ed. colleges that were surveyed.

Table 19: Social and gender profile of faculty in sample B Ed colleges

	Ajmer*			Barmer**			Baran***		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	36	18	18	22	17	5	15	9	6
SC	2	1	1	3	3	0	3	0	0
ST	0	0	0	1	1	0	1	1	0
OBC	5	3	2	7	4	3	5	2	3
General	29	8	21	11	9	2	6	3	3
*In Ajmer one govt. and one B.Ed college for girls only									
**In Barmer district 3 B.Ed colleges (all private) were surveyed as against 2 each in Ajmer and Baran districts									
***Baran both government colleges. One girls' only									
Source: Field notes, 2013									

The deficit of marginalised communities is a matter of grave concern, and the exclusion is equally sharp for both women and men, perhaps further exacerbated for women from these communities. Basant and Sen (2010) make a strong argument on the issues of secondary education within the ambit of any strategy looking to enhance higher education participation. They argue, "...*once persons from underprivileged groups cross the school threshold, the chances of their going to colleges are quite high. Clearly, the constraints on school education must first be fully understood and dealt with so as to enhance participation in higher education. Therefore, even while dealing with the issue of participation, should*

the higher education policy also focus on ensuring that the threshold (schooling) is crossed? (p. 69)"[37] Quite clearly, any attempt to increase the pool of women teachers would need to have an integrated and organic approach that builds bridges across secondary, collegiate and teacher training levels. In the current context, each of these education levels are discrete and self-contained silos. What is needed is a definite break from such practice and to creatively re-conceptualise the whole education continuum. This is a tall order and one is not sure that the government and educational bureaucracy is ready for even a dialogue on thinking out of the box.

3.3. Women in leadership roles at the secondary level

The issue of women's leadership in the public domain has often been a proxy to measure the extent to which women's empowerment has been achieved. For instance, women's political leadership in local and national governance is a critical indicator used globally to assess human and gender development of a country. What is the situation in the education sector? Given the low presence of women in the teaching profession, it is not surprising that the skewed gender imbalance and disparities is reflected in the leadership roles played by women teachers as well. By leadership, we mean as principals of schools and within educational administration as well.

According to the officials interviewed, there is no stated policy that goes against women teachers. However, there is an unwritten practice that women can be posted as Principals or Head Mistresses in "girls' only" schools. Given that such girls' schools are few in number, career advancement of women teachers is seriously limited.

Data from secondary schools in Ajmer district and from the sample blocks gives a clearer picture of the relative distribution of women in various positions at the secondary school level. In girls schools there are obviously women principals but in the case of boys' schools, while there are women in the lower categories of 3rd grade, senior teachers and lecturers, <u>not a single woman is in the position of a principal</u>.

Table 20: Women teachers at different levels in two sample schools, Ajmer District[38]

		Boys school				Girls school			
		Principal	Lecturer	Senior. teacher	Grade III	Principal	Lecturer	Senior teacher	Grade III
Sec I	Male	43	198	250	43	0	1	2	3
	Female	0	120	110	31	21	127	136	39
Rural sample block	Male	9	28	42	5	0	0	1	6
	Female	0	17	24	8	2	3	10	3
Urban sample block	Male	13	55	53	15	NA	NA	NA	NA
	Female	0	0			NA	NA	NA	NA

Source: DEO Secondary 1, Ajmer. 2013

---

[37] Basant, R. & Sen, G. (September 2010). Who participates in higher education in India: rethinking the role of affirmative action. *Economic and Political Weekly,* Vol. XLV (39), 62-70.

[38] The secondary schools in the district are divided into 2 circles- Secondary I and II. The blocks selected for this study fall within the Secondary I circle

Box 5: Journey to the post of principal: 35 years and 19 transfers

This is the story of Dr Devi (name changed) in her pursuit to the post of principal underscores the ways in which a woman's traditional and primary commitment to familial responsibilities influence and impinge on all career decisions.

Dr. Devi is from an educated family in an educationally forward district of Rajasthan, where her mother was a teacher and father, a workign in a pharmaceutical company. Her siblings to join the civil services and moved away. The mother, a teacher herself, played a significant role in influencing Devi to take up teaching as she was a good student. She completed her Masters in Psychology followed by M.Ed, and was ready to take on a teaching assignment. However, luck was not on her side. Psychology had not been introduced at the school level, and in college, no vacancies were expected for some time. She was advised to go in for another Masters' degree. This time, she chose English, a subject that was available in every school.

Devi was selected as a teacher in English and posted in a rural co-ed government school. Her parents found this to be an opportune time for her to 'settle down', and got her married to a Lecturer living in the district headquarters. There were unending days of anguish in 'separated living'. As luck would have it, within less than two years of her posting, she faced the RPSC and was promoted as a Head Mistress in the same school. The promotion was fine but not the posting. Many strings were pulled and she 'managed' to move out. This time an urban posting, though not her hometown and that to in a different range. Understandably, she or her family did not want this. Shortly, within six months she moved to her hometown as an Assistant Head Mistress in a government girls' senior secondary school (considered a parallel posting). By this time, she had already become a mother of two girls and one of them had joined school in her hometown. Within her hometown, she moved three times, from one school to the second, and then on promotion as Vice Principal joined the Teachers Training College. Again, she managed 'to stay' on in the same town, for family considerations, for the next 10 years.

Then followed another promotion as a Principal. However, this came with a transfer to a senior secondary school in another town. She was in a quandary, whether to stay with the family, decline the promotion, or take up the new assignment and move away from family? She felt she was a victim of another posting and another transfer! She was on the verge of 'compromising' with her current status, when her 'godfather' whom she had acquired over the years, advised her to move on and 'something' would be done to get her back. Consequently, she accepted the promotion and in just 4 months was back in her hometown as Principal of a girls' senior secondary school, where she had served as an Assistant Head Mistress earlier in her career. Her 'contacts' with a local MLA and linkages with the officials of the education department helped her to 'manage' her postings and stay on in in her hometown.

From the girls' secondary school, she moved as Research Officer in the Educational Technology Unit of SIERT for a short period of 9 months only. Thereafter she had two postings as Principal in two different schools, one of them on the outskirts of the town (easy commute possible), then as Senior Assistant Director at the Board of Secondary Education, and finally as Professor (post equivalent to DEO) at the Teachers Training College.

Another 14 months remain for her retirement, and she is hopeful that she would make it to the post of Deputy Director, (of course without accepting administrative responsibilities!), and continue to teach in the college. In the meantime, her husband has since retired, two of her three daughters completed their MBA and got married. The youngest daughter is a student of Commerce in Sophia, and would be graduating before Dr Devi retires.

How does she view her frequent transfers? "Well, with every transfer women like me, with families and children, go through a heart-rending time. I have not been a sufferer personally, but others around me suffered. Women face innumerable difficulties, there is no housing and no transportation made available to them. Then there are issues of safety and security…in the absence of family members who do you turn to for support and protection? Moreover, rural postings have limited or no facilities for education and employment, so family has to stay in places where these are available."

So, does every one 'manage' postings? "Yes, of course. Everyone has some godfather, with contacts, or with money/muscle power, anything can be 'managed'. Situation in the education field is getting worse day by day." Do

you think there are any discriminatory practices in promotion between males and females? "No. The date of joining determines your seniority. However, the process of promotion takes too long. It has taken me 19 years to move from an Head Mistress in a secondary school to a Principal's post, when normally it should have been 8-9 years". Why? "Because, firstly there was a stay on promotions for 6 years, then the education department gave away some posts to RPSC for direct recruitment, so teachers who had been recruited by the education department had limited opportunities to move ahead".

It appeared that Dr. D had been exceptionally fortunate in reaching where she was and 'managing' her transfers!

Field Notes of the research team in one district

Dr Devi's case illustrates the dilemmas faced by many women teachers. Placing family and children ahead of one's career means using whatever connections one has to get reposted to convenient postings. Having a 'godfather' or connections to ensure that a woman teacher can manage her career suitably seems inevitable. Coupled with the need to prioritise family over career, there are other concerns such as lack of housing, poor transport and issues of safety and security. The life of a woman teacher seems to be one of balancing social concerns and role expectations rather than one of working towards professional development and career advancement.

Moving onto the education bureaucracy, till recently there were separate posts of District Education Officers (DEO) for girls and boys schools and women could rise to the position of DEO. Apparently, this practice of separate DEOs for the girls and boys schools has been discontinued, thereby reducing the chances for women to rise in the education administration. Currently, there are 70 men and only 13 women as DEOs. Officials said that even when women are offered a promotion, they are reluctant to take it on because this may involve additional work and responsibilities, more time in school and travel to new areas. And in many cases, they say family concerns outweigh all concerns for career advancement.

3.4. Is becoming a secondary school teacher a preferred choice?

One of the issues this study attempted to probe is whether teaching at the secondary level as a preferred career choice. The responses from teachers were revealing. Teaching career was not a popular choice. We interviewed close to 40 teachers across 3 districts in secondary schools and in B.Ed. colleges. Out of these, 27 were women and 13 were male teachers. Almost 15 out of 27 women wanted to become teachers because they felt they could combine family responsibility with employment, while out of the 13 men only 5 wanted to be teachers. For those who became teachers by default or whose first choice was not teaching, the preferred option was to join the state civil service. Their failure to gain entry into the civil service made them become a teacher, the second best option. Teaching job, even though it is a government job, is often perceived as a stopgap measure till something better comes along.

In the FGDs conducted with women students in secondary schools and in undergraduate colleges, an overwhelming majority said that they did not want to teach at the school level, though they were open to the idea of becoming a college lecturer. However, the feedback in a backward tribal district such as Baran was different, where many girls aspired to become schoolteachers. In Baran, where employment options are limited and overall exposure to the outside world and its changes are limited, employment as a school teacher holds some attraction, perhaps because it is the only possible choice.

Why is becoming a schoolteacher not a preferred choice? In the popular view, teaching at the school level, elementary or secondary, is seen as having low social status, and being a low prestige job. As one teacher commented, "Teachers do not get the respect they once got sometime back"[39]. Low salary was another reason cited by many. In reality, the salary structure among regular government schoolteachers is

---

[39] Field notes, FGD in urban area, Ajmer district, 2013

far better than for contract teachers, and most often much higher than what is paid in private schools. The reason why men and women continue to seek to become a government schoolteacher is not only because of the better pay but also other service benefits such as gratuity, leave and pension. In the FGDs, it was evident that many students were unaware of the salary scales in government secondary schools. Further, unlike in other government jobs, the perception is that there is less rent-seeking opportunity as a teacher.

In most cases, teaching is not an aspiration but a practical choice for most women. Ironically, most girls end up as schoolteachers as it is acceptable to families. Families actively support teaching as a career option for women especially after marriage and as a profession where women can balance both familial responsibilities and employment that brings in an additional income.

One needs to be cautious in applauding this apparent shift in societal attitudes towards women and employment. The apparent support for women's education and then employment is propelled by the growing aspirations for changes in lifestyles that require a second income. In this context, a woman's income is highly valued. Accordingly, families are willing to make adjustments in order to permit their women to work. All, of course, within the patriarchal framework where 'family' in a woman's life predominates and is continually emphasized. And this balance can be easily maintained if a woman becomes a schoolteacher.

One often assumes that choice is a personal matter, where the individual, as an autonomous being, makes an informed decision that stems from one's aspirations as well as one's personal goals for life. In societies such as India where an individual is subsumed under complex social identities and relationships of caste, class, religion and gender, the possibility of an individual making a choice as a matter of personal right are limited. In the case of women, it is even further circumscribed. Much has been written about the continued subordinate and secondary status of women in India despite visible strides women have made in various fields. The depth and strength of patriarchal values that continue to underpin perceptions, changes and roles is also seen in the case of women teachers as well. Today while women working outside the house and seeking a profession is not frowned upon, rather is approved, sought and accepted, the choice of profession especially for women continues to be locked within patriarchal prescriptions and rules.

Box 6: Intergenerational change: A teacher's view

Ms. H (name changes) is a Science teacher in a senior secondary school in the urban block in a sample district with more than 20 years of experience. She is a resident of the village and her husband is an Ayurveda Doctor. She has managed to continue in the same school since her appointment in 1992. She decided to pursue a B.Ed. course after marriage, once her children had grown up. She wanted to utilise her time productively so she took admission in a B.Ed. college in Kota, stayed with relatives and completed her course. She recalls that being a Rajput it was difficult for her to continue her education, as education was not encouraged in their community. But her father supported her and she completed her B.Sc. and post graduation.

She joined as a government teacher in 1992. She is of the view that teaching is a suitable profession for women. She had not actively pursued promotional avenues, as she is 'comfortable' and did not want to disrupt her family by moving out of the village. However, she strongly feels that there is a generational difference in attitudes of young women teachers. *The girls of the new generation are smarter and do not want to give up on opportunities and promotions. They are willing to take up postings in newer areas.*
Source: Field notes

3.5. Is there a feminization of subject/stream specialisations?

One of the key issues this study explored is the possible feminization of subject specialization and its implications for future availability of women teachers in subjects like science, mathematics and commerce. In-depth interviews with teachers and FGDs with girl students and at the community level highlighted several aspects. There is a paucity of women maths and science teachers. Girls and especially

girls from the marginalized communities have limited access to science and math education, as the government girls' schools they depend on often do not offer these subjects. Further, the social perceptions shared both by communities and the girls themselves are that math in particular is beyond the inherent capabilities of girls.

The problem reflects itself in availability of science and math options at the higher secondary and collegiate level and in enrolments in these subjects as well. This imbalance gets further exacerbated at the B.Ed. level and results in very few women teachers of science and math being trained and being available as teachers. The vicious loop then restarts and over time, the cumulative impact of a gender imbalance in science education assumes huge proportions.

Nationally, as in Rajasthan, there seems to be growing disparities in higher education in enrolment in different academic streams. Except in the Arts stream, in Rajasthan, enrolments are significantly lower in the science and commerce streams than the national averages (see Table 21 below).

Table 21: Enrolment by academic discipline in higher education, Rajasthan 2008

Academic stream in higher education.	National Average	Rajasthan
Arts	60.15	64.7
Science	23.77	14.3
Commerce	16.8	13.5
Other		7.5
NAAC (2008): Analysis of peer team reports of accredited Institutions of Rajasthan: Issues and Strategies, Bangalore		

The low percentage of women teachers in science and math reveals that there definitely seems to be a trend towards some subjects beyond the reach of women. In the popular perception, there is gendering of subjects, wherein science and especially, math are seen as primarily "male" and "hard" subjects and Humanities/ Arts as "soft" subjects suitable for women, both to teach and to opt for in schools and colleges.

The skewed distribution of women teachers in math and science at the secondary level in government schools in sample districts is sharply delineated. The shortage of teachers in backward districts such as Baran and Barmer is very acute, especially for maths (see Table 22 below). Quite clearly, many more women are pursuing science at the collegiate level with a very small number opting for math. This once again is a trend that is being reported from across the country, where availability of maths teachers at secondary level is reaching a crisis stage. The problem gets reflected on the ground in terms of science and math not being offered in government schools, thereby reducing the opportunity for poor and marginalised students, especially girls, to pursue science education.

Table 22: Per cent women math and science teachers at secondary level in sample districts, 2010-11

	District	Total No. of Teachers	% of regular women teachers	% of women math teachers	% of women science teachers
1	Ajmer	1804	31.8	12.89	30.6
2	Baran	1070	17.1	4.9	20.2
3	Barmer	1099	10.3	1.7	14.9
4	Rajasthan	48902	20.5	7.7	20.8
Source: GOR, Shiksha ki Pragati, Board of Secondary Education, 2011-12					

To understand the roots of this gender imbalance by subject stream among teachers, it is important to trace the story to the situation in higher education and back to the secondary level itself.

At the secondary school level, there is limited access to science education as the number of girls-only schools in Rajasthan is limited and those offering the science stream are few. The picture from Baran and Ajmer districts provides an unequivocal proof of the skewed access between boys and girls. In Baran district for instance, the number of schools offering science is limited both in government and private schools. Only 9 girls' only government schools as against 31 co-ed government secondary schools offer science stream. The sharp disparity is evident in private schools as well where only 5 girls secondary schools as against 57 boys schools offer science. In Ajmer district, 9 girls' government secondary schools as against 31 for boys and 7 private girls schools as against 57 for boys offer the science stream.

> *In 3 schools surveyed in Barmer, the urban girls school offers science. In 2 rural schools, one girls and one co-ed, girls school does not offer science, as it was difficult to get science faculty. The co-ed school that does offer science has 18 girls enrolled for science and commerce (9 each) as against a total enrolment of 451 boys. Several of these girls come from as far away as 20 km. The school currently does not have a woman teacher.*
> Source: Field notes, Barmer district, 2013

Very few students from marginalised groups actually study science or mathematics at the higher secondary level. Equally, very few girls (including from forward castes) pursue mathematics and science and the numbers are miniscule among the marginalised groups.

Current enrolment data (for the year 2013-14) from one rural senior secondary co-ed school in Ajmer gives us an idea of subject choices being made by girls. The school offers science, commerce, arts (history and geography) and agriculture streams at the higher secondary level. As Table 23 below shows, out of 18 girls in class IX, 10 opted for science and 8 for agriculture. At Class XII level, out of the 23 girls 9 opted for science, 10 for Arts and 13 for agriculture. It is important to point out the relevance of agriculture as a subject here. The Government of Rajasthan Government offers a small stipend for those who opt for agriculture, which many education officials say becomes a key factor in family decisions to encourage their children to opt for agriculture and does not necessarily indicate a personal choice. A closer look at the data shows that science option is exercised primarily by OBC and general category girls, one from SC and none from the Muslim category. As reported in the FGDs, science option is seen as an expensive one as there are costs to be incurred by ways of tuition, lab fees etc.

Table 23: Subject-wise enrolment of girls in rural senior secondary school, Ajmer 2013

Class XII	Stream	SC		ST		OBC		Gen		Muslim	
		M	F	M	F	M	F	M	F	M	F
XII	Science	6	0	0	0	9	6	3	3	3	0
XII	Commerce	0	0	0	0	0	0	0	0	0	0
XII	Arts (History, Geography)	10	0	0	0	21	0	3	0	1	0
XII	Agriculture	1	3	0	0	8	8	0	2	0	0
	Total	**17**	**3**	**0**	**0**	**38**	**14**	**6**	**5**	**4**	**0**
Class XI											
XI	Science	2	1	0	0	21	7	1	2	0	0
XI	Commerce	0	0	0	0	0	0	0	0	0	0
XI	Arts	0	0	0	0	0	0	0	0	0	0
XI	Agriculture	2	0	0	0	12	6	2	2	0	0
	Total	**4**	**1**	**0**	**0**	**33**	**13**	**3**	**4**	**0**	**0**
Source: Field notes, Ajmer district, 2013											

There seems to be little variation between rural and urban settings. As the chart below reveals, one urban senior secondary sample school in Barmer district shows the preference of girls, stream wise across social

groups over a period of last 4 years. Amongst girls of General Category, Commerce stream is popular followed by Arts and then Science. In the other three social groups, namely SC, ST and OBC, the preference is towards Arts followed by Science, and Commerce being the least popular. As shown here, the maximum numbers of girls at secondary level who opt for arts stream are those from OBC group (48%), followed by General and then SCs, with very marginal difference between them. In the science and commerce stream, girls from the general community are predominant with over 51% Gen, about 30% OBCs and approximately 19% SCs. In the commerce stream, general community predominates with about 93%.

Chart 10: Enrolment of girls, stream wise in one sample urban school in Barmer
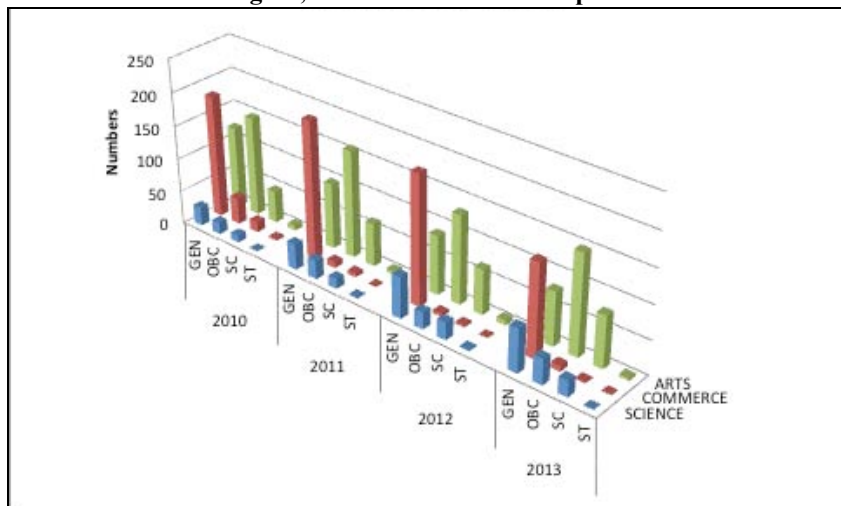
Even if science is on offer, the decision to choose science stream is influenced by a host of factors. Most girls, by choice or constraint, opt for Arts subjects while boys preferred to opt for science, maths, computers, or commerce. Parents, influenced by the strong gender biased cultural system, believe that all girls have to get married and do not need to pursue any profession. Consequently, they encourage their girls to opt for Arts subjects, which are considered less stressful (and it also economical). When it comes to boys, the thinking is diametrically opposed. Arts subjects are not preferred for boys because they believe it offers limited livelihood options, and for boys earning a livelihood is an imperative. Further, in all the FGDs, both at the community level and with girls, participants shared that if one is pursuing science, then additional financial costs are involved, such as lab fees and most importantly tuition fees, given the poor quality of teachers. This becomes a major obstacle for girls, as parents are unwilling to invent in tuitions for girls.

Accessibility to science stream is directly related to the presence of science faculty at the senior secondary level. As the situation stands, there is a shortage of teachers on the whole, which is further complicated by the issue of fewer and fewer teachers for science and maths at secondary and college level. Particularly at the secondary level, schools are constrained from offering science/maths stream to children, if teachers are not available in those subjects. And if the majority of students take Arts then the demand for art subjects continues at undergraduate level and is further sustained at teacher-training colleges.

Not surprisingly then, there are very few women available for science faculty especially physics and maths. The research team encountered this problem when they were selecting a rural Senior Secondary school offering science stream to girls. There were so few and the team had to go to another block to select a school. This itself is indicative of the severity of the issue that science stream is not offered in

quite a few secondary schools as faculty is not posted there or is not available or if posted, had taken a transfer out.

In all the 3 sample districts, one issue that was identified as requiring attention, especially at the secondary level, is the need for counselling and career guidance. Both girls and their parents need inputs in understanding the employment potential of various subjects. Also, making parents aware of the possible career paths based on subject specialisation was also seen as a critical need as decisions, especially by girls on which subject stream to choose, are influenced by parental views and perspectives. However, no serious career counselling was observed in any of the schools or colleges that were surveyed.

Box 7: How far have the personal choices and dreams of girls being met?

Urban school: Girls expressed a desire to learn fashion designing, music, dancing, stitching, and engaging in sports activity. However, the curriculum had no scope for such activities. Some aspired to be doctors, dancers, artists, actresses, designers, and yes, some also wanted to be teachers. The larger issue was how these dreams would be fulfilled. Did they have the relevant information, guidance, and, support to help pursue their dreams. The school occasionally organised 'counselling' workshops, basically lectures by people in different professions, to provide exposure and information. But these were not adequate in the rapidly developing world of today. Many different approaches were required. In order to attain their dreams, these girls, largely from low and middle-income backgrounds, not only score well in school and participate in other activities but also spend time and money researching and planning ways to fulfil their dream. Sadly, situated as they are, they were immensely disadvantaged. For most, their dreams would remain unattainable, and the unfortunate news was that they knew it.

Rural School: Girls felt that many more of their classmates would have opted for science and maths had the choice was available to them in the girls' only school in their area. They considered themselves fortunate that they had been granted permission by parents to attend school, even though there were problems. For most girls, completing school was the end of their educational life and they were reconciled to this fact.

College: Girls mentioned that while education was considered to be a great equalizer, they did not feel that this was true. The level of education required to compete in today's world was not what was being provided in their colleges. Their aspirations were to translate their education into a good job with a good salary so that they could improve the economic situation of their families. It was sad that a college degree no longer helped them to obtain a job. Higher education seemed an unattainable dream, and most of these hardworking girls from low and middle-income families will fall out of higher education opportunities to settle for some inconsequential pursuit.
Field notes, Baran District 2013

Not surprisingly the pattern of subjects opted by students in colleges is similar to what is chosen in the secondary and B.Ed. college levels and is also depended on what was available at the college. In Ajmer and Baran, for instance, the undergraduate colleges in the rural blocks offered only Arts subjects. Table 24 below gives the combined picture of urban and rural colleges surveyed in each sample district. In the rural based colleges, there are fewer SC and ST students.

Table 24: Subject-wise enrolment across social categories in sample UG colleges (2012-13)

	Arts				Science				Commerce			
	Total enrolment	Girls	SC girls	ST girls	Total	Women	SC women	ST women	Total	Women	SC women	ST women
Ajmer	3375	1243	419	68	1503	628	137	28	2135	765	109	24
Barmer	846	846	146	15	151	151	19	0	537	537	8	0
Baran	1392	1024	210	210	219	219	27	21	-	-	-	-
Source: Field notes, 2013												

The social profile of enrolled students as well as subject specialisations by social category is revealing. In the 3 B.Ed. colleges surveyed in Barmer district, where there were a majority of women students, the approved numbers of seats for science stream were not filled, as there were no takers. This again highlights poor access to science education at the secondary level. Seats vacant in the science stream were then reassigned to the Arts stream.

Table 25: Subject-wise enrolment across social categories, sample B.Ed colleges (2012-13)

	Arts				Science				Commerce			
	Total enrolment	Women	SC women	ST women	Total	Women	SC women	ST women	Total	Women	SC women	ST women
Ajmer	166	154	32	16	29	26	5	0	61	16	1	2
Barmer	267	209	26	6	11	10	3	0	31	17	2	0
Baran	154	100	20	20	40	29	4	4	5	3	0	0
Source: Field notes, 2013												

3.5.1. College faculty across academic streams

In the 7 UG colleges surveyed, there were very few women teachers in science stream, and fewer faculty members, both men and women, from the marginalized communities. In Barmer, for instance, in the urban UG College out of 9 teachers only 3 were women out of which 2 were in the Arts stream and 1 in the science steam. In the rural UG College, out of 14 faculty members, 7 were women (5 in the Arts stream and 2 in Science stream). In both urban and rural colleges, there were no women in the commerce stream. In Baran district, in the urban UG College, 11 out of 21 faculty members were women, out of which 9 in the Arts stream and 2 in the science stream. In the rural college that offered only Arts stream, 2 out of the 4 faculty members were women.

Vacancies in faculty positions for extended periods of time are also a problem, as reflected at school level too. In the urban sample college in Barmer for instance, there had been vacancies in science and Arts streams for over 3 years. The college had made ad hoc teaching arrangements with a part time teacher for the commerce subject, who was very irregular.

In the B.Ed colleges, SC and ST representation is low at the level of teaching faculty, with no difference between urban and rural areas. In fact, their representation is low even in tribal concentrated areas. In 6 out of the 7 colleges surveyed, there were no SC and ST women faculty. This highlights the huge challenges that lie ahead in enabling women from SC and ST communities to enter the teaching profession.

Table 26: Social and gender profile of faculty in 7 sample B Ed colleges

	Ajmer			Barmer			Baran		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	36	18	18	22	17	5	15	9	6
SC	2	1	1	3	3	0	3	0	0
ST	0	0	0	1	1	0	1	1	0
OBC	5	3	2	7	4	3	5	2	3
General	29	8	21	11	9	2	6	3	3
Source: Field notes, 2013									

Analysing the situation of women teachers at secondary level and the social distribution among them highlights the woeful inadequacy of the current equity and affirmative action measures. What comes to the fore is the poor participation, completion rates and transition to the next higher level of education among girls from marginalised communities. Quite obviously, the problem cannot be looked at in isolation but needs to be addressed along the education continuum starting at the primary level itself.

Besides the class and caste divides, addressing the gender subtext that underpins all aspects of girls and women's life is equally challenging. Choice for a girl/woman is determined by a host of cultural beliefs, values and practices, all of which are embedded within the family system. The manner in which this gender bias plays itself out is clearly evident in the decisions to choose specific subjects at the secondary level that do not question the accepted stereotypical roles for women, where family comes before anything else. This latter key aspect also influences the decisions that women teachers take regarding their career prospects and advancement. Often they defer or in most cases reject any career advancement as it disturbs their family situations and they need to fulfil this primary role.

Gender and social deficits at all levels and the rural-urban imbalances underline the difficult road ahead to achieve gender and equity goals in secondary education. The almost invisible representation of SC and ST women in the teaching force necessitate a new and radical approach to the education of girls from these marginalised communities.

3.6. On the journey to becoming a secondary level teacher

The path to becoming a secondary level teacher is not an easy one, especially for girls and even more so for girls from marginalised communities. The education environment over the past couple of decades has brought the issue of girls' education to the centre stage in the country. Affirmative policies for girls education, increasing parental approval of girls education at higher levels and growing aspirations among girls are often tempered by huge hurdles, both systemic and societal, that need to be overcome before there is a level playing field for children from the marginalise communities, in particular girls. This section looks both at the positive factors and the obstacles being faced by any student wanting to become a secondary level teacher.

3.6.1. Enabling factors – policies, incentives, hostels and above all a growing supportive environment for girls' education

A positive policy and programme framework

The commitment to girls' secondary education has deep roots in India and goes back to the days of modernization of the education system and concerns of building a new nation state. This commitment has been reiterated in the NPE 1986 and several Commissions such as CABE that have also spelt out how to translate policy commitments into action. If RTE is extended up to the secondary level i.e. class X, this would strengthen both governmental and non-governmental efforts for universalization of secondary education. It is expected that the setting up of RMSA would provide a boost for secondary education sector. However, it is too early to say what the long-term impact of RMSA is going to be.

Provision of a menu of incentives

A host of incentives are in place especially for girls from marginalized communities. These range from fee waivers, scholarships, financial incentives, to providing of bicycles and laptops to meritorious students. It was significant to observe that the merit based incentives laptops and scooties are accessed by fewer girls at secondary level, most of whom are from the general and OBC communities. They have the economic support from families to take tuitions and even to invest in transport for attending coaching classes. Table 27 below lists the large number of incentives that are being offer by the Government of Rajasthan.

Table 27: Incentives for girls at the secondary level in Rajasthan

Purpose	Type	For whom
Text books/fees	Educational support	All girls from classes 1-12
Transport expenses	Voucher	All girls @Rs 20 per day in class 9, distance of school 5Km from home
Mobility	Bicycles	All girls who pass class 8, distance of school 5 km
Financial incentives		

a) Fixed Deposits Receipts (FDR) b) National scheme for incentives to girls	FDR in class 9 FDR in class 9	KGBV pass out girls SC/ST, BPL SC/ST girls
Economic support	Rs 2000 pa Apki Beti Yojana	Girls studying in deaf, dumb and blind schools Girls who have lost one or both parents–classes 1-12
KGBV/ Sharada hostels	Residential Facilities for girls in educationally backward blocks	SC/ST/Minority girls and those from BPL families (Socially Backward Classes, BPL and girls whose mothers are widows)
Awards		
Rajiv Gandhi digital student plan	Laptop awards – 10000 girls	Toppers in class10 and 12 at district level
Gargi, Indira Gandhi, Balika Protsahan	Awards – Merit based Over 75% marks in class 12 First position in 10 and 12th Over 75% marks in class 12	All girls, district level All categories of girls All girls
Awards for girls with disabilities	For girls in classes 9-12	Physically challenged girls
Insurance scheme	Accident insurance for boys and girls @ RS 5 for boys and Sr10 for girls paid by state govt.	All boys and girls

In Baran district, schoolteachers reported that not only the incentives were being received but more importantly, as having a positive impact on enrolment and retention of students including girls from the marginalised communities.

Community level FGDs provided insights on how parents and communities viewed these incentives. Unlike Bihar, where the introduction of bicycles has been reported to provide a major booster for girls' secondary education, in Rajasthan, bicycles were not positively received especially by the Muslim community and in areas with very sparse populations. Concerns of safety, security and travel through difficult terrains were cited as main reasons. In Ajmer, many girls reported that they did not know how to ride a cycle. In fact, cycling is considered more a male oriented activity. Further, it was generally felt that the monetary support was insufficient to fully meet the needs of poor girls.

Despite the slew of incentives offered, one area that was mentioned in several discussions was the need for extra academic support, especially for girls from marginalized communities who have neither the environment nor the academic support available at home. Poor families are unable to meet the costs of tuitions, which seem *de rigueur,* given the poor quality of classroom teaching. Perhaps, there is a need to revisit the whole notion of the type of incentives required especially at secondary and higher secondary level.

Table 28: Feedback on incentives from FGDs with various stakeholders

District	Barmer	Baran	Ajmer
Access to incentives	Cycles (money for) and textbooks are given to all girls and also travel vouchers to those girls who reside beyond 5 km of schools.	Mostly received on time.	Access is not a major problem, however, some parents and girls felt that the incentives should be available for all who are poor and not be limited only to some social groups. Many joined school to gain access to these incentives, but were sure they would leave after receiving them as 'nothing happens in school'.

			There were a few instances where girls received cycles and laptops and sold them later.
Problems in access	Parents said that poor families who need the incentives are unable to access them.	Lack of timely sharing of information by teachers with parents leading to non-access in some cases. Lack of bank accounts meant that there were delays in depositing bank cheques for purchase of laptops.	None specifically reported
How useful are the incentives?	During discussion with drop out girls in the rural block, a girl reported that she got enrolled in school to get the cycle and dropped out once her father received the cheque.	Teachers reported that incentives have a positive impact on retention and completion	Girls said incentives motivate parents to enrol them in school. Secondary school level girls reported that cycles were given, but most did not know how to cycle. Also, it was not safe to cycle to school. Laptops and scholarships – were available to only those who had 'contacts'. Also, no computer literate person available in school or village to teach students how to use computers or tablet computers Monetary value of incentives is low and of not much assistance to the needy/poor. Money for scholarships is insufficient and was not paid regularly. Incentives are useless, if nothing is happening in schools, it does not impact retention. For retention and completion of school education, improved quality of education in school is the most important factor. Fee waiver helped girls in seeking admission in a college.

Importance of hostels

A key-enabling factor highlighted during the FGDs with students in schools and colleges was the availability of a hostel. Under RMSA, opening of hostels, one in each Educationally Backward Block is one of the strategies for boosting the participation of marginalised social groups such as SC, ST and Minorities in secondary schooling. The issue of hostels at secondary level also require that the safety and security of girls be taken care of with the presence of a full time woman warden residing in the hostel. The National evaluation of the KGBV (2013) programme pointed some major loopholes, "Where the RMSA hostel is adjacent to the KGBV, the team noted that there was no warden and in fact the girls were left alone at night. This is indeed worrisome"[40].

The role of a strategically located (close to a secondary school) and well run hostel in ensuring the continuance of girls education is strikingly illustrated in Box 8 below, where a seamless link between a KGBV and hostel provided under RMSA have opened a window of opportunity for tribal girls from the Sahariya tribal group in Baran. Sahariyas, it needs to be mentioned, are among the most backward tribal groups of Rajasthan.

---

[40] Government of India (2013). *National Report on Second National Evaluation of KGBV Programme of GOI.* New Delhi: MHRD

Box 8: Ensuring girls' continuation in secondary schooling: The RMSA hostel

The RMSA hostel in the sample rural EBB block was started in 2010. There are 60 girls residing in the hostel. 40 girls joined the RMSA hostel after completing their Class VIII in the KGBV, which is located in the same campus. The remaining 20 girls joined the hostel from neighbouring villages, as they did not have access to a secondary school in their village. The hostel has 4 rooms to accommodate all the girls, a warden's room, kitchen and an office. There is a Warden who stays in the hostel and the cost per child and other expenses are borne by RMSA.

Girls residing in the hostel are enrolled in Classes IX - XII in the government senior secondary school located in the block headquarters. Their villages are located within a radius of 8-25 km. Many Sahariya girls are residing here and are enrolled in the school. These girls, who were earlier studying in the KGBV, were unanimous in stating that their parents allowed them to continue their studies, as there was a hostel available where they could stay and attend school. These girls were articulate, confident, and aspired to go to college after completing their schooling and wanted to get a job and support their families.

Girls' Hostels with good facilities where girls are supported and are cared for may be the need of the hour in remote districts like Baran.
Field notes, Baran district, 2013

The requirement of a hostel was high on the priorities of girls we interacted with in the undergraduate colleges and B.Ed colleges. Provision of residential facilities either attached to the colleges or as standalone institutions seems to be required. However, unlike some other states, none of the UG colleges surveyed had hostels facilities. Among the 7 B.Ed colleges that were surveyed, 3 colleges had closed down the hostels and the reasons for closure were not clear. Three other colleges did not have hostel facilities. There was one functioning hostel in the private rural B.Ed College in Ajmer district. Given the rising transportation costs, security, and safety concerns for women students, lack of hostels is an obstacle for poorer students and girls in particular. As mentioned earlier, the role of residential facilities in promoting girls education cannot be overstated, as seen in the case of the Jat community in Barmer.

Box 9: A Model Teacher training college in Ajmer District

From Ajmer district we have an example of a how a teacher training college can be creatively conceptualised to meet both academic standards as well be sensitive to the needs of women students.

Set up in 1974, the college is located approximately 15 km from Ajmer on a campus spread over 14 acres, in an eco-friendly environment with a magnificent view of hills in the background. This campus founded in 1927 by Shri Hari Bhau Upadhyaya, a well-known freedom fighter, who was the nucleus of the freedom movement in Rajasthan under the leadership of Mahatma Gandhi. The college is now an infrastructural blend of many initiatives: teacher training courses (B.Ed. and BSTC), a demonstration school, 4 Anganwadi Training Centers (under ICDS) and a hostel sponsored by Social Work Department. The college is affiliated to the MDS University, Ajmer. The courses are recognised by NCTE, New Delhi. The annual intake is 180 for B.Ed. and 50 for BSTC students (all women). Subject choice available is wide and encompasses all three streams as well as languages.

In 1993, MHRD upgraded the college to 'College of Teacher Education' (CTE). It is now entrusted with conducting in-service teacher training for 5 Districts – Ajmer, Tonk, Bhilwara, Pali, and Nagaur. Around 20 -24 programmes are conducted each year. A number of Research Projects have been completed and the Extension Department has brought out packages in English and Mathematics.

The uniqueness of this college lies not in the prescribed course content for teacher trainings, but the wide variety of enrichment avenues it opens up to the would-be teachers: practical internship, demonstration lessons, micro teaching, orientation program, simulated lessons, literary activities, cultural games, sports activities, extension lectures by eminent educationists, and most importantly, the unique Educational Social Work program aimed at developing a social outlook and dignity of labour among prospective teachers, awakening their interest in

environment, and working with the local rural community. None of this richness was visible in the rest of the Bed Colleges surveyed.

Another distinctive feature of the college is the adoption of state of the art technology and multimedia equipment. The Edusat 'satellite interactive terminal' set up with the help of ISRO, helps it to connect to SIERT Udaipur, Shiksha Sankul Jaipur, all IASE's, CTEs and DIETs of Rajasthan for in-service teacher training. Additionally, there is Internet access in all the classrooms, library, conference room, auditorium, administrative block and information technology lab. White boards occupy a noticeable position in each classroom. An Information Technology Lab equipped with 40 computers connected through LAN caters to the IT need of would be teachers. The library is a place of pride. Spacious, with adequate seating arrangements, it houses more than 12000 books, subscribes to more than 50 journals and magazine, and also has a photocopying machine. In terms of labs, the college boasts of Science labs, maths lab, audio-visual lab, ICT lab, geography lab, and a Guidance Counselling and Psychology lab.

The most comforting feature, however, was the thoughtful planning for women - a large common room, neat and clean toilets, study areas, and a hostel facility with mess arrangements. A special feature of the hostel was the facility provided especially for pregnant women, or women with newborn baby to stay on campus with a family member and cook their own meals. This was indeed a one of its kind facility. The Principal, committed to the students in their academic, pedagogical and professional pursuits conceptualised this idea and set up this innovative facility, because, in his words, ' women join the course after many challenges – let our college not test them further, but support them to move ahead and be empowered'.

Source : Field notes, Ajmer, 2013

The impact of positive role models and the presence of a catalysing force

One of the missing links in all efforts to promote and advocate education for girls is the showcasing of role models to establish the full potential of education. This can be a powerful tool especially in convincing parents and communities that have been excluded from the ambit of education. We present 2 case studies below that represent two very different situations. One is a case of Shabana (name changed) from Ajmer district who pursued her interest in science and became a role model for her sisters and other girls in her village. The other case is of Rita from Baran district, a school dropout who fortuitously had access to an alternative learning opportunity that enabled her to continue her studies. In both cases, their interactions with a local NGO working on education and girls' empowerment made all the difference.

Box 10: Significance of a positive intervention: The case of Shabana

Shabana, 17 years old, is the oldest among her five siblings. While studying in class VII, she came in contact with Doosra Dashak's "Vigyan Kendra" near her village. The fun way in which science principles were taught at the centre inculcated in Shabana an avid interest in Science. She obtained good marks in class VIII board exams and received Rs. 5,000 under government's "Inspire Award" scheme. Buoyed by this success, Shabana made a model pulse detector for her school's science exhibition. The model was sent to the district Science fair held in Ajmer. The travel to the city was another enriching experience for Shabana. During Independence Day celebrations, the village sarpanch acknowledged Shabana's achievements and presented her with a cash award of Rs 1000. Shabana's achievements inspired her younger sister Rijwan, who too scored well in Science and received the Inspire award. Rijwan is a Math prodigy having scored 92/100 in class 10th board exam. "I ran out of paper and could not attempt the remaining 8 marks question," she says in a matter-of-fact manner. She is the only girl studying Maths in class XI in her school. "It feels odd to be in a class full of boys, but I enjoy maths."

Shabana has now completed class 12th. Though she wanted to be a doctor, she chose to pursue nursing as, "Studying MBBS is very expensive." Shabana's positive example has encouraged all her siblings to study hard. All of them stand first in class. "My youngest sister Najranoor just received a laptop", Shabana says proudly. "Earlier the neighbours would taunt my parents about educating us so much. They used to believe that educating girls too much spoils them. But now they give our example to their children. This year a few more girls from our village have opted for Science in class XI and go with Rizwan to the Government Senior Secondary Boys School in the rural sample block.

Source: Field notes, Ajmer district, 2013

Rita Sahariya (name changed) is 17 years old and lives with her father and 5 siblings in a village in Baran district. Her father is a landless agricultural labourer. Rita was enrolled in the primary school in the village but dropped out of school after completing Class V. Two of her siblings, a brother and a sister also discontinued schooling after primary. Rita recalls that she did take admission in the upper primary school but since the school was located 7-8 km from the village, her parents were hesitant to send her to the school that was far. The school building was not good and there were 50 children in a classroom. There was no woman teacher in the school. When her mother fell ill she stopped going to school.

In 2009, Rita was identified by the Doosra Dashak (DD) team and was enrolled in the adolescent camp for dropouts, where she completed her Class VIII levels. She was later encouraged by the Doosra Dashak team to complete her Secondary level through the Open school system. She also has undergone a computer course, though she cleared the examination in three attempts. The coordinator of DD in Baran paid the examination fee. She is now preparing for the Class XII examination through the Open School system. Rita is of the opinion that girls should be encouraged to study as much as possible and become independent!

Source : Field notes Baran district, 2013

Changing attitudes towards girls education beyond elementary level

FGDs at the community level were primarily done with women and mothers and with girls who had dropped out before secondary school. Getting fathers together was difficult and hence, discussions were held only with a very small group of fathers and some men. Discussions with men were revealing for a variety of reasons**.**

We did not encounter any strong opposition to the idea of girls' education in any of the interactions at the community and institutional level. This in itself represents a significant change in thinking, as similar discussions held around 20 years ago would have focused primarily on the question of why girls should be educated. Officials attribute this greater awareness and support to the girls' specific initiatives and special incentives offered by the government.

However, the situation is not the same across all social categories/groups or classes. There is a discernable difference across social groups on the significance attached to girls' secondary education. There is marked and active support for girls' education among the OBC community at all levels (school, colleges, employment), reflecting the overall social mobilization among the OBC community, as is also reflected in our field data and observations. However, for girls from Rajput, SC and ST communities, continuing education beyond the elementary level is a challenge as early marriage continues to be a practice among these communities. Girls reported that at the family level many people are involved in the decision to allow a girl to go beyond the elementary level. Parents, grandparents, other senior members of the family and community play a role in this decision. Obviously there seems to be a need to reach out to these gatekeepers and decision makers.

Interactions with the civil society organizations working with the Muslim community in Ajmer city highlighted that completion of primary education continues to be beyond the reach of many Muslim girls. After class IV or V, families prefer home tutoring, usually by a Maulvi. The low participation levels stem from strong cultural restrictions on the mobility of women and girls, and the perceptions that going to school would have an adverse effect on the girls' behaviour. Further, there has not been any long-term and sustained interaction with the Muslim community on education by organisations or by the government.

Despite pockets of resistance, our discussions across 3 districts and even in the Muslim community highlight what communities see as conducive conditions in order to support girls' education at the secondary level and beyond. There was no difference in the opinions expressed between rural and urban areas. Concerns and what is required were quite clearly spelt out, as depicted below:

- Safety and security within institutions and during travel to school or college emerged as a major concern.
- There was a general rejection of co-education as a viable option at secondary and higher secondary level.
- The message essentially was that girls-only schools would be not only welcomed but also likely to boost girls' participation. Across the board in all FGDs, both girls at all educational levels and parents stressed the need for girls only schools at secondary and higher secondary level in particular.
- Another equally strong message was the critical need for more women teachers especially at the secondary level and definitely in the coeducational schools. "If a 'behenji' teaches in the school it will be good, then even if there are male teachers, it's no problem."[41]

Box 12: In the shadow of the Saint: FGD with the Muslim community

Mothers narrate the 'customs' of their community i.e. most girls' study till class 5 or maximum class 8. It was not that they do not value education. Relevance of education was perceived as the ability of girls to compete with the opposite sex: "*padh likh kar admi sey mukabla kar sakti hai*", or simply be able to read the name of the railway station ("*Railway station ka naam padh sakti hai*"). Then why do they not study further? Well, the problem was that the girls' senior secondary school was far. Understandably, the geographical distance was only 3 kms, but the perceived social distance was far greater. What about the school close by? The problem lay in it being co-educational. Mothers spoke openly on the tradition of not sending grown up girls (meaning adolescents) to co-educational schools for fear of '*oonch neech*' (some happenings which may bring the family disrepute). "We wish to educate our girls, but there has to be safety and security of our girls. The '*mahaul*' (social environment) here is very bad. If there could be a female to escort the girls from our doorsteps to school and back, we would think of sending them back to school".
Source: Field notes, Ajmer district 2013

Perceived significance and importance of women teachers
The one overwhelming message that this study brings to the table is to underline the importance of women teachers both at school and collegiate level. Teachers interviewed at every level i.e. school, college and Teacher training colleges believed that having women teachers makes a positive difference to the girl students. Girls themselves (especially at the school level) said they find it easier to talk with women teachers. In Baran district, girls reported that women teachers support and guide them. Most importantly, they felt comfortable, as they were able to discuss their personal problems with the women teachers, "*Hum apni niji samasyayein mahila teacher se keh sakte hain*"[42]. Parents in the community vehemently stated that they feel safer sending their grown up daughters to school when women teach them. A schoolteacher in a co-ed government school reported that rural mothers not only accompany their daughters to school at the time of admission but also insist on meeting the women teachers and personally entrust their daughters to them.

Just how significant the presence of a woman teacher can be is well illustrated by the personal experience of a woman principal of a private undergraduate college in Ajmer district. She recalled vividly from her own experience, "*All my life I have never asked a question to a male teacher. Instead of raising my hand and risk attracting the male teacher's attention to myself, I opted to rote memorize equations and entire theories of physics.*" This statement underlines the fact that in a deeply gendered society like Rajasthan where dialogue between men and women is frowned upon, it is foolhardy to expect that gender will be left at the threshold of a classroom. The policy of placing only women staff in girls-only schools in Rajasthan is derived from this understanding. Moving towards co- education implies also a move towards more girl students being taught be male teachers. This may affect not only girl's enrolment and retention in higher classes but also their learning levels. As a senior bureaucrat rightly said, "RMSA's stated policy of moving towards co-education may be based on egalitarian principles but is unfortunately not rooted in

---

[41] FGD, Barmer district, 2013
[42] Field Notes, Baran District, 2013

people's practical realities". One wonders why policies are made without taking the social context into consideration.

3.6.2. Obstacles to becoming a secondary level teacher

The obstacles and roadblocks encountered in the effort to becoming a secondary school teacher stem from a complex web of factors.

Universal strategy with almost no flexibility for context specific strategies promoting co-education at higher secondary school with little regard for what specific communities or contexts need
Incentives such as cycles not popular for getting girls to school in deep rural areas.
No strategic plan in place to address the uneven distribution of schools to ensure that all areas are equally served
No clear policy or plan to increase the pool of secondary level women teachers
No proactive policy to promote science education among girls
Creating academic hierarchy by limiting girls only schools, and not offering science and math in girls schools.
No women science and math teachers even in co-ed schools
Science and math not offered in nearby UG colleges
Limited science/Maths seats in B.Ed. colleges, insensitive curriculum and general environment.
Lack of supportive structures such as hostels
Lack of extra academic support for girls from marginalized communities
No clear strategy to address gender issues within secondary schools and higher education institutions

Sexual harassment, sexual innuendo, physical safety, fear to use toilets in public places
Insensitive male teachers and students
No support systems.
Lack of women teachers in co-ed schools

Willing to educate girls but not to invest or bear extra costs of tuitions/hostels etc.
Feel that external environment not suitable for girls and hence do not send girls to coed schools. Concerns of family honour
Critical concerns for safety/ security of girls during travel
Unwilling to invest in tuitions and extra costs to enable girls to study

Low self esteem.
Internalised society's view that girls are subordinate and of lower value than boys.
Inability to negotiate with family to pursue one's aspirations
Compromise on career advancement to accommodate family needs and interests
Internalised view that boys are better at science / maths
Distance to an educational institution a matter of concern Fear of harassment in the external environment and in co-ed schools/colleges

66

Negotiating an hostile environment

Gender insensitivity and harassment outside and inside schools and colleges is emerging as the key barrier to the advancement of girls' education. The external environment, en route to school or college was cited as a major problem. Equally, the situation within educational institutions was a matter of concern and a deterrent. The daunting gender insensitive environment within educational institutions is just beginning to get the visibility and recognition it requires. This is the first step towards tackling this insidious problem.

▪ Inside the school:
  i. Eve teasing (a rather inappropriate word for sexual harassment), overt and subtle forms of sexual harassment, snide comments, and unspoken threat have created a sense of fear. Harassment and intimidation of girl students in "boys schools" is common. When girls walk into the school or to the class, groups of boys block the path and do not let the girls move. The girls do not look up or make eye contact with boys. As a girl from a rural secondary school in Ajmer commented, "It's humiliating. *Man karta hai unko mar dein* (I feel like killing them)".
  ii. Girls are unable to participate with confidence in a co-ed classroom
  iii. Girls do not ask questions or clarify doubts in class, especially with male teachers.
  iv. There are no support structures for girls especially in boys' schools. The lack of women teachers' means they have no one to turn to.

▪ Inside B.Ed. Colleges:
  i. Men and women students do not speak to each other and move around in separate groups. More than the actual incidence of harassment, women students talked about the fear of harassment.
  ii. Women students said they did not have anyone to talk to and they did not speak to male teachers. But this was not the case in the girls-only college.
  iii. By and large, the pedagogy adopted did not create space for interaction or questions-answers.

▪ In the Co-ed Colleges
  i. Girls do not speak to teachers for fear of being reprimanded, ridiculed and also because they are afraid that they will lose marks in internal assessment.

The common perception is that girls and women need to be thick skinned to survive this hostile environment in educational institutions. Very few officials and teachers we interacted with believed that men and boys need to change their behaviour and that it is the responsibility of the principal and teachers to ensure a harassment-free environment. On the other hand, incidents of sexual harassment were a butt of jokes among them.

Box 13: Gender issues on campuses: Some glimpses from Ajmer District

A Senior Secondary School in a rural block in Ajmer district said - This school accepts girls in Science, Maths and Agriculture stream at higher secondary level in classes XI and XII, as these streams are unavailable in any girls' school in the block.

As the researcher of this study makes her way towards the assigned class for the FGD with girls, a group of boys collect in the corridor. They arrange themselves in a way that makes it impossible for the researcher to reach the class. Standing thus they sing suggestive Bollywood songs and snigger.

The class XI girls shared that boys harass them constantly. They play cheap songs on their mobiles, shove unwanted toffees and friendship bands into their bags, obstruct their way to class, send notes and letters, pass comments and leer. "It is humiliating"; *"Man karta hai unko maar dein" (I feel like killing them).*

Girls feel that they are unable to complain to the male principal. However, whenever they have shared this problem with their teachers they have been advised to "remain away from the boys"; "don't laugh in front of them"; "don't do anything that attracts their attention," or asked to "remain outside the class unless there are more girls". The girls

say that in their opinion 50% more of their classmates (from the girls' school nearby) would have opted for Science if it were available in the girls' school.

Undergraduate Government College at the district headquarters: Third-year Maths girl students cannot stop speaking about the problems they face on a co-educational campus. In the large 100-acre campus, there is only one set of girl's washroom. Even that becomes difficult to use as groups of boys always loiter there. Most of the common areas, such as canteen, students' office, garden and even the library are thus rendered inaccessible to girls. "They whistle at us as we walk, write our names with theirs on black boards and mentally harass us. There is no one to complain to. The principal is not accessible. In such a large college, teachers do not even know our names how we can trust them to take action?"

Though the scope of this study's was modest, it is significant that at every level, school, undergraduate college and teacher training colleges, girls reported feeling unsafe and threatened in co-educational institutes.

Source: Field notes Ajmer District 2013

Insensitive male teachers and students

Insensitivity of male teachers towards girls and their female colleagues was reported in the FGDs. A lack of understanding or sensitivity to gender issues underpinned their casual comments and attitudes. What is of concern is that unlike in the elementary sector, almost nothing is being done on gender sensitization of students and faculty in secondary schools, colleges and B.Ed. colleges.

The overall attitude of male faculty towards their female colleagues is that women are being unnecessarily privileged over men. Men agreed that women have dual responsibilities. However, the men we interviewed complained that women get preferential treatment:

- "Women talk about equality, but when it comes to staying on late in school, or working on issues which may require longer hours of work, they want to be the privileged woman and be excused."
- They will not wait for even 5 minutes after school hours. They just want 'money' and do the basic 'teaching'.
- Women teachers are 'touch me not's - no one can point a finger at their mistakes or shortcomings for fear of retaliation. A lot of women teachers take advantage of being 'women'.
- Women keep complaining about discrimination, when actually it is the men who are discriminated against and are given lesser privileges.
- Men felt that women teachers do not like to take on any 'work burden'. They teach but do 'nothing extra'. Some said those women teachers take the plea of family duties when they are given extra duties that require extra hours at work place. "I feel if they are getting the same pay, they must take equal responsibility".

Box 14: The teacher who used sexist language

Mr Vijay (name changed) never wanted to be a teacher. His aim was to become an engineer, but since he could not pass the preliminary examination to qualify for B Tech., he decided to become a teacher like his father. He is a Postgraduate (Chemistry) with B.Ed, M.Ed and started teaching in the then `only ' science school. He entered the system in 1994 as a 2nd grade teacher, but in 1997 became a lecturer. He has attended several training programmes, "in fact it is difficult to recall them now". Presently, he has been deputed to take Chemistry classes in the Girls higher secondary School. He also takes coaching classes for higher secondary and college students (popular amongst students) and sees this additional responsibility as "expanding his net", meaning opportunity to reach out to more students for his coaching classes.

According to Mr Vijay, teaching is the best profession for women as the nature of job suits them and it is easy. "Once they become a teacher they do not have to exercise their minds too much" "*Ek baar teacher ban gaye to zyada dimaag nahin lagana padta hai*".

In school, he feels women teachers are very sincere and given their experiences they are given "*choti*" (small) responsibilities in schools. He has been teaching both boys and girls, inside and outside the school and he believes students are more attentive to teachers of the opposite sex. They tend to concentrate more.

He has his own way of creating the atmosphere of his tuition classes friendly, by making sexist jokes (be it about comparing teaching to a mini skirt, while it reveals a lot, it also keeps the curiosity on). The girls sitting in classes get visibly uncomfortable with his comments and jokes, but seemingly, `Sir' is too self consumed to even notice the discomfort of his students.
Source: Field notes, Barmer, August 2013

Inability to cope with the academic requirements
The inability of students from marginalised communities to cope with academic requirements of secondary level is emerging as a major deterrent. Girls in Baran reported that failure to clear the board exams at the secondary level meant that they could not continue. Parents are unwilling to allow the girls to repeat exams or continue. This raises the question of the quality of education and teaching learning levels at the elementary level as well[43]. Though, a host of incentives are available for these students it does not include extra academic support they require to be able to cope with the academic requirements of the secondary level.

Lack of hostels
Lack of hostels and consequent increase in transport and boarding costs is seen as a hindrance to participation in higher education, both at the under graduate and B Ed level. This is of particular importance in districts such as Barmer where the distances are huge. In many cases, girls do not go beyond class X or XII as college is inaccessible or far and there are no hostel facilities, as our study found.

Insufficient number of women teachers, especially from marginalised communities
Feedback from all the stakeholders was that it is imperative to have women teachers to boost girls' participation in secondary schooling. Lack of women teachers especially from marginalized communities was striking in the sample institutions surveyed. While there is no apparent systemic barrier to becoming a teacher and the reservation policy actually encourages people from marginalised groups to become teachers, the problem is quite acute. A major barrier is that very few people, both men and women, from socially marginalised communities actually complete high school, enter college and then enrol for a B.Ed. programme. The long gestation period from completing school to getting a post-graduate degree (sometimes 6 years) is a formidable barrier to becoming a teacher. Once they acquire the qualification, they have to then clear the TET or RPSC examinations.

In conclusion, we cite a lone example we came across that gives hope that perhaps all is not lost. This is the case of a principal of a co-ed school who demonstrated how a co-ed school could be made safe for girls. This case underlines the critical role that a sensitive and responsible principal can play in making the school environment girl friendly.

---

[43] Poor and falling learning levels in language and math at the primary and elementary level especially in government managed schools have been widely commented on. See Education Initiatives (2010) Student Learning study; Pratham's Annual Survey of Education Reports from 2005 onwards

Box 15: Curbing eve teasing in school: The 'can do' spirit of the Principal

"I had given a commitment to the parents of girls that nothing will happen to your girls once they are in this school. I have to abide by that." The Head Teacher of a co-ed school told the research team. He has been in this school as senior lecturer for years and is now in charge of the school as the principal has retired. He said he was very strict regarding school discipline and the way boys behaved with girls, as there were only 20 girls enrolled in classes XI and XII.

When girls joined the school in class XI, they felt scared/ intimidated among so many boys. How would the situation be? What will they do? Now they feel OK, comfortable in talking and handling the classmates and other boys in the school.

Girls in this group informed that many of them walk to school, though a few of them came by bus – 25 km, 15 km, 9 km – 8 girls came to school by bus. They spent about Rs 20 per day or more on bus fare (through the school they were able to get the meagre transportation stipend also). Those who walked to school came together in a group. They said that at times they were accosted by boys, who harassed them. This was encountered by them both within and outside the school.

The principal warned the boys that if they indulged in ragging or teasing girls then he would take stringent action. It was quite visible that he kept the boys under tight leash during school hours and even during class time. Girls said that in one incidence of eve teasing outside the school, he lodged an FIR against the boys and had them behind bars. In case of teasing within the school, the boys were punished, their parents informed and were even rusticated for a while. Girls from the commerce faculty informed that boys always pestered them for notes. Other issues with boys were that they wrote the names of girls on the walls, teased them and followed them on the street when they were going home. The girl students then complain to the teachers or the principal.

However, girls said as they have the support of teachers and the principal in particular and they are able to study confidently along with boys. In fact, they have developed coping skills to handle them, their comments etc. They ignore them when they pass remarks and even report them. However, in school they do not play any games/sports with the boys, as the school does not encourage this. Male teachers are supportive to girls as there is a clear message from the principal. There is a separate toilet for girls, far from the boys' toilet, which they share with the only lady teacher (part-time) in the school.

Source: Field notes: Barmer, September 2013

3.7. Conclusion

Though, on the one hand, the environment for girls' secondary education seems positive with proactive policies and programmes and a supportive environment developing at the community and family level, on the other hand, there are difficult and thorny issues that are likely to become insurmountable obstacles unless they are expeditiously dealt with. On the supply side, limited number of girls only schools and the low number of women teachers in general are issues that need to be prioritised for attention by the government, especially now since RMSA is being rolled out. A proactive strategy to popularise science education from the upper primary level itself in government schools needs to be developed to ensure that the social hierarchies are not replicated through an academic hierarchy that mirrors social divides. There are some issues such as providing safe transport and building safe hostels for girls at school and college level that could be easily addressed. The real challenge is the daunting social and gender insensitive environment that girls and women teachers have to encounter and cope with on a daily basis. This could prove to be the biggest obstacle in promoting secondary education for girls. Tackling this latter issue would require not only an innovative approach but also forging partnerships to with various groups and civil society organisations.

Part 4: Overview of key issues and challenges

There are no expressly stated systemic barriers faced by women and women from marginalised communities to become secondary level teachers. The host of incentives and reservations in admissions at the collegiate level available for girls from marginalised communities should have been the key enabling factors. It is here that the texture and quality of education available in government schools becomes a key factor. Government schools are the main providers of education for the poor and marginalised communities. The quality of teaching and learning process in these institutions has long-term effects and impacts. The cumulative burden of poor quality education in government schools starting from the elementary cycle contributes to poor achievement and performance at secondary level resulting in very low participation in higher education, low success in qualifying examinations and finally results in very small numbers of women, especially from the marginalised communities who actually go on to become secondary level teachers.

Further, there is a long gestation period, of 6 years after completing higher secondary, to become a secondary grade teacher. After higher secondary, students have to acquire undergraduate and postgraduate degrees, teacher-training certification and then take competitive exam (RTET) to get recruited. This is a daunting task, especially for marginalized girls, who often do not have sufficient resources or support to undertake this journey.

Field observations and interactions in 3 districts underscore the need to address some key areas of concern that have emerged from this study and which require some policy and programmatic changes and interventions. Community concerns and ground realities need to be taken on board if the goals of universalization of secondary education are to be realized. Different stakeholders, parents, girls and teachers pointed to an urgent need to reconsider the entire policy on ensuring access to secondary education, especially to girls and to put in place mechanisms to increase the numbers of women teachers.

4.1. Low representation of women in the teaching profession

In Rajasthan, representation of women, especially from the marginalized communities, in teaching profession at secondary and collegiate level and even as teacher educators is very limited. The lack of women teachers at tertiary level devolves back to the whole issue of girls' participation and completion of secondary education. The number of women science and math teachers is worrisomely low. This latter problem, in particular, stems from the lack of access to science education at the higher secondary level.

4.2. Changing community perceptions

It is important to note that there has been a perceptible change in community and parental perspectives on girl's education as our field interactions showed. The thrust on universalization of elementary education for the past 25 years now seems to yield some positive outcomes.

The issue is no longer a question of whether girls should be educated, but concerns related to conditions under which girls can continue onto to secondary and tertiary levels of education. This is a message from across the spectrum of communities in urban and rural areas that we interacted with. These changed attitudes at the ground level need to be capitalized on and is an important pointer for policy makers. The picture, however, is not totally sanguine. There are social sub-groups in remote areas among specific communities (such as Rajputs, Muslims, SCs and STs) that continue to support early marriage for girls and are not keen on secondary education for girls. The assumption that a positive environment for girls'

education has been created under UEE campaigns and nothing further needs to be done at the community level requires to be critically revisited.

4.3. Rethinking access of girls to secondary education

The issue of access to secondary schooling needs to be seen from the context within which it is being enabled. Access to education is not a neutral process. There are several factors that impinge and influence access to education, especially in a traditional cultural context such as Rajasthan. In the case of girls, and especially from marginalized and hitherto excluded communities, strong cultural and traditional constraints on girls mobility and perceived threat to the safety and security of older girls in general needs to be taken on board. The latter issue of safety and security is emerging as a key constraint and barrier to girls' education at the secondary level. The current situation where there are very limited girls-only schools and the policy does not expressly promote or support separate schools for girls is a matter of concern. What is worrisome is that there seems to be an unstated government decision reported in our field interactions that no new girls' schools would be opened. This is a short-sighted approach to say the least.

The overwhelming demand from the field is girls' only schools at secondary and senior secondary levels. The current policy of ensuring access through an up-gradation of upper primary schools leaves a huge gap as far as girls are concerned. As the numbers of girls' only schools are very limited, the deficit continues at the secondary level. Often one hears that due to shortage of resources it may not be possible to open girls' only schools. This argument flies in the face of the larger national goals of achieving gender and equity goals in secondary education.

It would be useful to recall the observations of the CABE report on girls' education (2007). The report drew attention to not only a shortage of secondary schools, but also towards the high dropout rates among girls, especially in Northern India, due to poor access especially in rural areas. The CABE report specifically suggested the need for exclusive girls' only schools. "Opening of schools exclusively for girls appears to be necessary to overcome the gender disparity. States have to undertake, on priority, school mapping for girl's education, especially for Muslim girls"[44]. The need for a clear policy on girls only schools at secondary level is becoming imperative and arguments of low resources etc. is only to duck the issue altogether. A global study on girls education summarised the issues succinctly, "Already excluded because of their gender, many girls face multiple barriers, making it more difficult for them to enrol in and complete primary school and continue on to secondary school... reaching excluded girls generally means higher costs and alternative policies and strategies because their needs differ from those of majority population..." (Lewis and Lockheed, 2007; p, 19-20)[45].

Box 16: What then are the key determinants of ensuring quality secondary and higher education to girls?
Outside the school:
✓ Communities and parents, especially marginalised communities are convinced of the value of secondary education and higher education
✓ Sustained sensitisation of men and boys at the community level on gender issues
✓ Interventions for the empowerment of adolescent girls and young women
✓ Safe transport facilities
✓ Hostel close to secondary schools and colleges
✓ Incentives to include resources for academic support in difficult subjects

---

[44] MHRD, GOI, (2007) Twelfth Five Year Plan December
[45] Cited in Ramachandran & Jandhyala (2010) Note on Girls Secondary education in India prepared for MacArthur Foundation

> **Inside the education system (schools, colleges):**
> ✓ All girls schools to offer science and math
> ✓ Medium term plan to increase the numbers of women teachers at the secondary level; especially in math and science
> ✓ Adequate quality infrastructure in all government schools- toilets for girls, functioning libraries and laboratories
> ✓ Greater exposure at the upper primary level to science and math subjects through sciences fairs and excursions for teachers and students
> ✓ Career counselling and guidance at the secondary level
> ✓ Gender sensitisation of male teachers and boys at the secondary and collegiate levels, alongside strict guidelines on code of behaviour and prevention of sexual harassment

4.4. Provide residential facilities at the secondary and collegiate level

The importance of hostels cannot be overstated. The overwhelming message from all FGDs with girls in schools, colleges, and B.Ed. colleges across all 3 districts was that access to a hostel is critical, especially in rural areas where the distances to travel are quite considerable. Hostels are required across the spectrum at secondary, collegiate and teacher training level. Family concerns of rising transport costs and safety issues often work as a major deterrent. As seen in Barmer district, which has very dispersed populations, provision of hostels by the Jat community has resulted in boosting the participation of Jat girls in secondary and higher education. Similarly, in Baran district, the location of a hostel in close proximity to a higher secondary school had a positive impact on girls' participation. This has also been the experience across the country as well.

In far-flung and geographically difficult locations, it would be necessary to start hostel facilities for girls so that even those living in remote areas can participate effectively in secondary education. While opening of hostels is part of the overall gender and equity strategy of RMSA, there does not seem to be any clear and strategic plan in place to locate hostels after mapping local needs. Accommodation for women teachers (in special cases) in these hostels would encourage them to be retained in the district, instead of seeking transfers elsewhere. There are examples from southern states in particular, where separate boys and girls hostel, specifically set up for marginalized social groups, has boosted their participation in secondary and higher education.

4.5. Safe public transport

The need for safe transport has also been pointed out as a major problem. There is a heightened perception of how unsafe it is for girls to travel alone, especially older girls. The issue is particularly critical in rural areas, like in Baran and Barmer, where habitations are dispersed and the nearest secondary school or college may be located 10 to 15 km away. And even in urbanised areas like Ajmer where safety and security concerns are high among the Muslim community and where distance to school or college may not be as much, the fear of harassment and teasing is a major deterrent that has an adverse impact on girls' higher education.

4.6. Address poor access to science / math and commerce education especially for girls from marginalized communities

Our field sample showed that in general very few girls and an even smaller number of SC, ST and Muslim girls opt for science stream. Girls at higher secondary level and at the collegiate level cited several reasons for not choosing science stream. The predominant reason was the non-availability of science stream being offered in girls-only higher secondary schools. Hence, girls have to go to co-ed schools for pursuing these subjects but they cannot do so because their families are often against co-education. This is particularly true of the Muslim community. Another equally important reason cited was the additional costs involved in pursuing science. The extra costs of lab fees and additional academic

support in the form of after-school tuitions seem to be a deterrent for girls from very poor families (SCs and STs) to take up science and mathematics at higher secondary levels. Families most often are unwilling to make this extra investment and girls are compelled to opt for humanities and arts stream.

Denying science education to the very poor girls from marginalised groups only exacerbates the existing inequities in higher education and employment. In such a context, achievement of gender and equity goals at secondary level appears very elusive indeed.

It would be pertinent to take a leaf out of the efforts to promote agriculture education. In Ajmer district, for instance, we found that the cash incentive given to students who opted for agriculture resulted in many more girls enrolling in this stream. A similar cash incentive could be considered to encourage science and maths education among girls.

The loud and clear message from the field is the urgent need to expeditiously increase the pool of women teachers. Parental concerns of safety would then be allayed to some extent and girls themselves will be more comfortable especially in co-ed institutions if there are more women teachers.

4.7. Counselling to exercise informed choices to select the academic stream at senior secondary

Girls in secondary schools and colleges pointed out the lack of counselling on what academic streams to follow and what careers to pursue. They stressed that this is an important area that needs attention, an important need among boys as well. At secondary level, girls have to make the choice of stream, which they opt for on the basis of what is available and what they learn/hear from their peers. The students in senior secondary schools and even in colleges articulated this. There is no system of counselling to advise them regarding the streams and subjects to opt for at higher secondary level. There is no guidance on what career choices are available based on the subjects chosen. They may want to take up medicine or nursing as a career, but may not receive any guidance as to which subjects to opt for in class 11. At the most, teachers tell them to opt for the arts stream as the faculty are available and these subjects are easy, do not require much a hard work and they can get marks easily.

4.8. Negotiating a gender impervious and hostile environment in educational institutions

A critical and likely major deterrent to girls studying in co-ed institutions in general is the difficulties of negotiating the social environment in and outside the classrooms in all levels of institutions. This was the common thread that ran through all our interactions and discussions with girls in schools and colleges and equally with women teachers in colleges and teacher training institutes. Harassment, sexual innuendoes, physical safety, fear of mobility, even to the washrooms, within the institution, derisive talk etc. were reported as making life in a co-ed institutions very stressful. This was true for both higher secondary level as well as B.Ed. level. With very few women teachers in higher secondary schools and in B.Ed. colleges, both girl students as well as women teachers feel at a disadvantage. They do not have the safety of numbers nor the support and solidarity that numbers would have provided. Almost everyone seems to be silent on this issue, so much so it continues to gain in strength insidiously. This could emerge as the major deterrent to girls' education in general and participation in higher education.

Part 5: The Way Forward

5.1. Need for dialogue at the community level

Once again, sustained community level engagement is required for secondary education as well. Our field interactions indicate the need to engage in dialogue at the community level where provisions, entitlements, benefits of secondary education and possibilities for skill development and employment are foregrounded. The current policy and programmatic allocations do not provide for such work. This is an urgent requirement in the current context where communities require that extra push to sustain girls' education at secondary level. A targeted approach with the involvement of groups and organisations working with these specific communities is required. Obviously, suitable allocations need to be made for this purpose.

5.2. Reconfiguring secondary school

In Rajasthan, to reconfigure secondary education the government has two options; either to open new girls' only secondary schools or alternatively start girls only shifts in existing boys schools, where currently girls' enrolment is very limited. The shift system currently exists in many urban-based schools, and ensures optimal use of resources. Delhi introduced girls and boys shifts in secondary school a long time back, thereby maximising the use of infrastructure.

Quite obviously, any attempt to increase the pool of women teachers would need to have an integrated and organic approach that builds bridges across secondary, collegiate and teacher training levels. In the current context, each of these education levels are discrete and self-contained silos. What is needed is a sharp break from such practice and to creatively re-conceptualise the whole education continuum.

GOR's current plan to start a higher secondary school in each Panchayat would address the issue of access to a large extent. As this plan is already in the pipeline, introducing separate shifts for boys and girls should not be difficult.

In this context, the importance of distance education in coping with increased demand and poor accessibility cannot be overemphasized, and its relevance for boys and girls located in remote areas to go beyond the elementary level and even onto higher education. Further, distance education mode could also be an option for girls from very orthodox communities that continue to resist sending older girls to school. This once again would require the participation of organisations working at the grass-root level both for mobilizing girls as well as to ensure effective provision of open schooling. Our field interactions in the rural sample block in Ajmer showed that the involvement of such committed organisations is a key determinant in ensuring the education of older girls in particular.

5.3. Increasing provision of hostels

Quite obviously, having a universal provision of hostels may not be possible given the limited resources. As a first step, mapping of the critical locations where girls would have to travel long distances and where opening a hostel would make a crucial difference needs to be done expeditiously. The issue of hostels would be of equal importance for boys from remote areas and from poor communities.

Another way in which hostels could be provisioned is to locate them within the catchment area of a higher secondary school. Locating hostels within the catchment area of a school is not a new idea and is an integral part of the KGBV scheme for instance. The Model III under the KGBV programme provides for the starting of a hostel from where girls go to a nearby elementary school. Some states such as Andhra Pradesh and Uttarakhand for instance have upgraded the Model I KGBV School up to the X Class. The

National Evaluation of KGBV programme in 2013 pointed out, "upgrading the KGBVs or forging effective linkages with hostels / residential schools provided by RMSA and other departments need to be mapped for guiding the graduates from KGBVs to the next level of education"[46].

A similar forward-linkage is essential and provisions made to provide hostels for girls studying in college and B.Ed. programme. There needs to be a cooperative and convergence approach between the departments of secondary school education, higher education and SC, ST and Minority Welfare to map provision of hostels for girls, especially girls from marginalized communities. An immediate step could be attaching a hostel to all B.Ed. colleges in the state of Rajasthan.

5.4. Ensuring safe transport

As GOR plans a secondary and higher secondary school at each Panchayat, it maybe useful to provide separate bus services (like they used ladies specials during fixed time in Delhi for many years) for girls only in rural areas.

In urban areas, an escort for groups of girls to go from their home to school could be considered. This is a strategy that would be welcomed especially by the Muslim community. This, again, is not a new strategy as it had been used very effectively in the earlier days of UEE.

5.5. Promote science education among girls

Every girls-school (especially in the government sector) or at least a nodal school for cluster of schools must offer science and mathematics at the higher secondary levels.

The government could consider providing additional academic support to girls from marginalised groups, especially in classes IX and XI. This can be done at the school level (this is also equally important for boys from marginalised social groups).

Scholarships for pursuing science and maths at school level should be introduced with a focus on promoting science among girls.

A focused plan to strengthen science and math education at the upper primary level needs to be put in place, both to foster interest in science as well equip students to opt for science and math confidently at secondary level.

5.6. Career Counselling and guidance

The government needs to consider systematic career counselling in schools, and later on at college level, as most students do not receive much guidance from parents. This could be initiated through the skills development department in schools. This would be a positive step as the majority of students in government secondary schools and colleges are not from economically better off families, so for them choice of stream and appropriate subjects is critical to help them make career choices in view of future employability for jobs at level 2 or 3.

5.7. Building an educational environment sensitive to gender and social diversities

The government, in collaboration with women's organisations, could organise workshops in every secondary and higher secondary school to engage students in a dialogue on the importance of creating a non-discriminatory environment in the school. Given the wealth of evidence, both research based and

---

[46] Government of India (2013). *National Report on Second National Evaluation of KGBV Programme of GOI.* New Delhi: MHRD

media reports, on sexual harassment, caste and community based discrimination, and prevalent social attitudes towards the marginalised, schools and colleges should be positioned as spaces where teachers and students learn and internalise the values of non-discrimination and equality enshrined in the Constitution of India. This could be initiated in a few districts as a time-bound pilot in order to develop strategies to conduct activities with students and teachers. Interested donor agencies could be brought together to explore how this could be initiated. Making our educational institutions safe-spaces is an urgent requirement.

Box 17: Gender Equality Movement in Schools (GEMS)

The International Centre for Research on Women (ICRW) New Delhi, Committee of Resource Organizations (CORO) Mumbai and Tata Institute of Social Sciences (TISS) Mumbai have (with support from MacArthur Foundation and Nike Foundation) pioneered a programme for promoting gender equity with the children, by the children known as GEMS. This programme believes that school is the right place to address gender norms before they become deeply ingrained. The module is designed to conduct a series of activities with boys and girls of differ age groups. They specifically address issues of sexual abuse, harassment and violence. The module also provides for focused activities with teachers and seeks to train a group of teachers in each school, so that they can anchor the programme. GEMS promotes greater equality among boys and girls by taking them through a journey where they examine social norms that define the roles of men and women. It enables young people to reflect on behavior patterns that seem to be the social norm in the school and in public spaces.

In view of the series findings of this study, it would be valuable to initiate a similar initiative in high schools (classes 6 to 8), secondary schools (classes 9 and 10) and higher secondary schools (classes 11 and 12). A tailor made programme could be designed for Rajasthan and implemented by NGOs in partnership with schools

5.8. Strategic plan to increase the pool of women teachers

The government needs to make a district-wise estimate of women teachers required, if the options of education of girls either through girls' only school or separate shifts are implemented.

Accordingly, seats for women in B.Ed. colleges need to be increased. Equally, the allocation for different academic streams needs to be re-examined to reduce the skewed allocations and consequent bottlenecks that are created and to ensure that the numbers of seats for science are increased substantially from the current 10% to 20% at least. Perhaps an incentive for students who opt for science stream could be considered. This is important because we noticed that science students opt for arts stream in B.Ed. colleges. The NCTE and other relevant national regulatory bodies need to be brought on board to work out a strategic plan to enhance the pool of women teachers at secondary / higher secondary levels.

Finally, the government needs to have a time-bound plan to ensure that teacher recruitment that has been held up is expedited. A further effort must be made to recruit at least 50% women among them and give priority to recruiting new teachers for science /maths stream.

Bibliography and References

ASER (2005 onwards). *Annual Status of Education Report (Rural.* New Delhi: ASER Centre.

Balagopalan, S. and Subrahmanian, R. (2003). Dalit and Adivasi children in schools: Some preliminary research findings. *IDS Bulletin,* Vol. 34 (1), 55-62, Brighton: Institute of Development Studies.

Basant, R. & Sen, G. (September 2010). Who participates in higher education in India: rethinking the role of affirmative action. *Economic and Political Weekly,* Vol. XLV (39), 62-70.

Bhog, et al, (2011). *Secondary education in the context of Rashtriya Madhyamik Shiksha Abhiyan: A Desk Review*, Nirantar, New Delhi.

CABE Committee (2005).*Universalization of Secondary Education.* New Delhi: MHRD.

Deepa Sankar (2008). *Teachers Time on Task: Quantity and Nature of Tasks*, The World Bank.

Desai, S. and Thorat, A. (2011). Social inequalities in education. In IDFC, *India Infrastructure Report – Private Sector in Education.* 45-46. Routledge.

Dewan, H., Batra, N., & Chabra, I.S. (2012). Mathematics up to the Secondary Level in India. In R. Ramanujan and K Subramaniam (Eds.) *Maths Education in India: Status and Outlook,* pp. 89-105, TIFR.

Educational Initiatives (2010). *School Learning Study.* Educational Initiatives.

Geeta Kingdon, et al (2010). *The School Governance Environment in Uttar Pradesh, India: Implication for Teacher Accountability and Effort*, Working paper No.31, DFID.

Government of India (1952-53). *Report of the Secondary Education Commission.* New Delhi: Ministry of Education.

Government of India (1959). *Report of the National Committee on Women's Education.* New Delhi: Ministry of Education.

Government of India (1998). *National Policy on Education 1986 (A modified in 1992) with National Policy on Education, 1968.* New Delhi: MHRD

Government of India (2001). *Census 2001.* New Delhi: Ministry of Home Affairs. Retrieved from http://censusindia.gov.in/2011-common/censusdataonline.html

Government of India (2007). *National Evaluation of Kasturba Gandhi Balika Vidhyalaya (KGBV).* New Delhi: MHRD.

Government of India (2011). *Census 2011.* New Delhi: Ministry of Home Affairs. Retrieved from http://censusindia.gov.in/

Government of India (2012). *Restructuring and Reorganization of the Centrally Sponsored Scheme on Teacher Education.* New Delhi: MHRD.

Government of India (2013). *All India Survey on Higher Education (2010-2011).* New Delhi: MHRD.

Government of India (2013). *All India Survey on Higher Education 2011-2012 (Provisional).* New Delhi: MHRD.

Government of India (2013). *National Report on Second National Evaluation of KGBV Programme of GOI.* New Delhi: MHRD.

Government of Rajasthan (2011-12).*Shiksha ki Pragati* (Progress of Education), Directorate of Secondary Education, Bikaner.

Lewis, M. and Lockheed, M. (2007). *Inexcusable absence: Why 60 million girls still aren't in school and what to do about it.* Washington DC: Center for Global Development.

Naik, J.P. (n.d.). *The Role of Government of India in Education.* Ministry of Education, Government of India.

Nambissan, G. (2006). Terms of inclusion: Dalits and the Right to Education in Ravi Kumar (ed.) *The Crisis of Elementary Education in India,* 225-265. New Delhi: SAGE Publications.

National Assessment and Accreditation Council (2008). *An Analysis of Peer Term Reports of Accredited Institutions of Rajasthan – Issues and Strategies for Quality Enhancement.* Bangalore: NAAC.

National Council of Educational Research and Training (1966). *Report of the Education Commission, 1964-66.* New Delhi: Ministry of Education.

Planning Commission (1956). *Second Five Year Plan (1956-1961).* Government of India, New Delhi.

Planning Commission (2012). *Twelfth Five Year Plan (2012-2017), Social Sectors, Vol. III.* Government of India, New Delhi.

Rajagopal, S. (2010). Towards gender equitable education: Challenges and opportunities in secondary schooling in India. In *Engendering Empowerment: Education and Equality e-Conference,* 12 April-14 May. New York: United Nations Girls' Education Initiative. Available from URL: http://www.e4conference.org/e4e

Ramachandran, et al (2005). Teacher Motivation in India. DFID.

Ramachandran, V. (2004). Fostering opportunities to learn at an accelerated pace: Why do girls benefit enormously? *Working Paper, 2(1)*. UNICEF.

Ramachandran, V. (2004). *Gender and Social Equity in Primary Educaiton: Hierarchies of Access (Ed.)*. New Delhi: Sage Publications.

Ramachandran, V. (2011). *Towards gender equality in education*. New Delhi.

Ramachandran, V., and Naorem, T. (2012). *Inclusion and exclusion of students in the school and in the classroom in primary and upper primary schools*. EdCIL, TSG. New Delhi: SSA.

Stacki, S. (2002). *Women Teachers Empowered in India: Teacher Training Through a Gender Lens*. New York: UNICEF.

The World Bank (2009). *Secondary Educaiton in India: Universalizing Opportunities*. Human Development Unit, South Asia Region.

UNDP (2011). *Human Development Report 2011. Sustainability and Equity – A better future for all*. New York: Palgrave Macmillan.

United Nations Girls' Education Initiative (April 2010). *Equity and inclusion in education: A guide to education sector plan preparation, revision and appraisal*. UNGEI.

Vaid, D. (2004, August 28). Gendered inequality in educational transitions. *Economic and Political Weekly,* 3927-3938.

Cover Page Photo Credit : Kalyani Saxena

ERU Consultants Pvt ltd
2014