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Revitalizing, Innovating, Strengthening Education

Revitalizing, Innovating, Strengthening Education (RISE)

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POST-EARTHQUAKE EDUCATION RECOVERY PROGRAM

Annual Report: Year 3

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NATIONAL RURAL SUPPORT PROGRAMME

SARDAD RURAL SUPPORT PROGRAMME

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Executive Summary

In the third year of the project (August 2008 to July 2009), *Revitalizing, Innovating, Strengthening Education (RISE)*, met all of its targets. Specifically, RISE has:

- Raised the level of management skills of district education officials to the level of 2.18 (as per the current performance evaluation report);
- Recorded an increase in proactive behaviors on the part of officials to improve the education system in the districts (targets met);
- Trained 5,249 teachers, 116% of the target of 4,500 teachers in Year 3;
- Enhanced the sustainability of changes in teacher behavior through successful follow-up cluster meetings, formation of general and subject-specific professional development forums and 101 cluster-level Subh-e-Nau competitions (overall target met);
- Trained 34 volunteer teachers identified by SMCs/PTCs;
- Trained 405 school head teachers for at least 2 days;
- Opened 64 LRCs in the four districts;
- Formed or revitalized 545 SMCs/PTCs and trained 1,153 School Management Committees/Parent-Teacher Councils (SMCs/PTCs), 100 percent of the target met;
- Assured the regular meeting of all operative SMCs/PTCs and assisted in the development of 2,300 School Improvement Plans (SIPs) (100 percent of the target of 2,300 met);
- Organized 99 recognition events (26 in Bagh, 31 in Muzaffarabad, 7 in Poonch and 35 in Mansehra) to recognize and celebrate SMCs/PTCs achievements;
- Conducted 8 district level seminars on the role of communities in child education, awareness on girls' education and more (2 in Bagh, 3 in Muzaffarabad, 1 in Poonch and 2 in Mansehra) for SMCs/PTCs and communities;
- Issued the first installment of 808 SMCs/PTCs' grants and 476 second installments of SMCs/PTCs' grants (78% of target);
- Closed out small grants projects which were successfully completed by 127 SMCs/PTCs;
- Documented, in the teacher absenteeism study, a substantial decrease in teacher absenteeism in the two districts included in the study. Absenteeism in Mansehra decreased from 25% in the 2007 baseline to 12% in 2009 and in Bagh, absenteeism decreased from 20% in the 2007 baseline to 14% in 2009;
- Documented improved teacher behavior in the teacher observation study in summer zone schools. Teachers in both grades 4 and 8 showed outstanding improvement in all six cluster variables. In the post-test, both grades 4 and 8 teachers in summer zone schools obtained statistically significantly higher scores than their scores in the baseline. **In most cases, they rated either *satisfactorily* or *excels* in the post-test as opposed to *unsatisfactory* or *satisfactory* in the baseline;**
- Overall, students in grade 4 showed some improvement in the interim test as compared to their performance in the baseline in all three subject areas; and
- Students in grade 8 did not show any improvement in the interim test as compared to their baseline scores.

It is evident from the performance evaluation report (attached in RISE quarter # 12 report) that RISE has raised the management skills of Bagh, Mansehra, Muzaffarabad and Poonch district education staff. At the time of baseline measurement, the average scores were generally between 0 (little evidence of awareness and interest in the area) and 1 (awareness and interest but no active measures for implementation). At the end of Year 2, the average had risen to 1.1, showing some evidence of growth in education managers' skills. In Year 3, the average score has risen to 2.18. In the last year of the project, RISE will have to work to raise the scores to 3 in each area (officials taking active measures to improve management).

RISE teacher training has been very successful in all four districts. By the end of Year 3, RISE has trained 7,290 primary teachers, 1,776 middle school teachers and 732 high school teachers, for a grand total of 9,798 teachers. Of these, 52 percent are male and 48 percent female. The remaining teachers will be trained in August 2009 to complete the target of 10,000 teachers in all four districts. RISE has a goal of training an equal number of male and female teachers, and staff plan to train a higher number of females in subsequent sessions in year 4 (August 2009 to July 2010).

By the end of Year 2, 1755 SMCs/PTCs were formed or revitalized and 1147 SMCs/PTCs trained. In year 3, the remaining 545 SMCs/PTCs were formed or revitalized and 1153 SMCs/PTCs trained. The staff has sufficient time in year 3 to continue to build their capacity and assist them to become mature SMCs/PTCs. All the SMCs/PTCs have developed School Improvement Plans (SIPs), and these SIPs were endorsed by their respective district education officials. Most of these committees have developed linkages with the education department and other organizations to acquire funds for their schools. An Appreciative Inquiry Tool (AIT) was designed to gauge the maturity of SMCs/PTCs and was used in Year 3. Plans are to continue use of the tool in Year 4. A monitoring mechanism for the implementation of RISE small grants has been developed, and projects that meet the priority needs of schools are being completed. Proactive measures taken to achieve gender parity in all components' activities were a priority in Year 3.

Component 1: Education Management

In Year 3, RISE focused on two key areas in the capacity building of education managers in the four districts: 1) financial management and budgeting, with a particular focus on need-based budgeting; and 2) EMIS. RISE assisted education managers in strengthening the data collection and verification mechanisms in all RISE target districts to ensure the availability of valid, reliable, and accurate data. RISE began its work with education managers on the development of District Education Plans (DEP). Additionally, workshops and on-the-job support continued on school supervision and support, personnel management, and oversight of SMCs/PTCs.

Capacity building workshops were organized on *Financial Management & Budgeting* for education managers in all the target districts. These workshops introduced concepts and practical activities related to financial management, needs-based budgeting, advocacy for fund raising and timely disbursement of available funds. During the workshops, education managers made a commitment to develop needs-based budgets for at least 10-15 schools in each circle of the district every quarter. To date, need-based budgets of 1,844 schools have been developed; these will be reflected in the district budgets in the next fiscal year. One important achievement of these workshops is the engagement of government personnel as resource persons. Accounts and planning experts from the Department of Finance & Planning, Accountant General's offices, and district education offices conducted sessions in all the target districts. These resource persons were also involved in the needs assessment and planning for the workshops. Education managers are also making efforts to disburse allocated school funds.

In all target districts, RISE-embedded staff assisted the education managers in developing budgets for fiscal year 2009-10 using EMIS and data collected during their school visits. The proposed budgets have been sent to the higher authorities for consideration and its approval.

In AJ&K target districts, Steering Committees recommended a separate budget allocation for Deputy District Education Officers (DDEOs) to meet the immediate needs of primary schools. In response to the recommendation of the SCs, the Finance Department of AJ&K approved the separate budget for DDEOs to take care of the needs of schools and offices in their jurisdiction.

During this reporting period, workshops on *monitoring and verification of data collection and compilation processes* were conducted for education managers. In addition, workshops for EMIS staff were also conducted on *data entry, cleaning and generation of query-based reports from the Access Database*. Moreover, 699 lead data collectors were also trained in *the use of data collection tool and data collection procedures* for Annual School Census (ASC) 2007-8 in AJ&K RISE target districts. Schools were divided into clusters (5-10 schools in each cluster) and lead data collectors were trained in all 4 districts. These lead data collectors report the data of their clusters to the concerned ADOs/AEOs, who, after verification, submit the data to senior district education officials and the District EMIS staff. RISE staff also assisted the education departments in conducting a seminar on *findings and lessons learned* on EMIS data for dissemination of education statistics in all 4 target districts.

Orientation workshops with an aim to strengthen the education managers' capacity to develop ***District Education Plans (DEP)*** were conducted in all 4 RISE target districts. In these workshops, District Support Groups (DSGs) were identified, and their roles and responsibilities were defined. The DSGs have already begun to work on the DEP development process with the technical assistance of RISE embedded staff. The education managers arranged consultative meetings with district education stakeholders, including students, teachers, head teachers, SMCs/PTCs, and communities. As part of this process, district education officials took part in visioning exercises to inform the development of the DEP in each district. Data collection tools for the DEP are under development.

In all four districts, information on RISE-trained master trainers, item writers and material developers was shared with the education managers to discuss the possibility of establishing an ***in-service teacher training system*** using district-based resources. In this regard, coordination meetings were held in all four districts with pre-service teacher training institutes to discuss potential sharing of human and material resources.

As RISE enters the final year of the project, the team will build upon the infrastructural improvements and successes of the last three years. In Year 4, component 1 activities will continue in the four education management areas: 1) financial and personnel management; 2) school supervision and instructional support; 3) community mobilization; and 4) SMC/PTC support. RISE will give particular attention to the management areas of planning and development and in-service teacher professional development. Both these areas showed comparatively lower achievement because trainings and activities related to these activities started in the second half of Year 3. In Year 3, RISE organized workshops, consultative meetings and on-the-job support to assist the education managers in planning and organizing in-service teacher training without external help. RISE will also assist education managers in developing and implementing District Education Plans (DEP).

In Year 4, the education managers will continue holding SC meetings, visit schools, oversee the participation of SMC/PTC in school improvement, and put further efforts to develop the DEP without external support. Education managers will continue their coordination with different NGOs to design and implement in-service teacher training programs. RISE staff will monitor their progress and assist in these areas when required.

The expansion districts of Muzaffarabad and Poonch will have a special focus in Year 4. Since RISE has had less time to work with the education managers on their skills in these districts, RISE plans to give more attention to them so that they are at par with the Bagh and Mansehra by the close of the project.

Component 2: Teacher Training

During Year 3, RISE’s teacher training program was in full swing. RISE conducted training for primary, middle, and high school teachers throughout the four districts. Table 1 shows that by the end of Year 3, RISE trained 7,290 primary, 1,776 middle and 732 high school teachers, for a grand total of 9,798 teachers.

District	Primary School Teachers			Middle School Teachers			High School Teachers			Grand Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Bagh	627	713	1,340	274	218	492	117	67	184	1,017	999	2,016
Mansehra	1,202	1,084	2,286	265	199	464	159	122	281	1,626	1,405	3,031
Muzaffarabad	1,131	1,026	2,157	251	196	447	95	85	180	1,477	1,307	2,784
Poonch	682	825	1,507	198	175	373	63	24	87	943	1,024	1,967
Total	3,642	3,648	7,290	988	788	1,776	434	298	732	5,063	4,735	9,798

During the reporting period, RISE trained 5,249 teachers (2,524 male and 2,725 female) in all the four target districts. For detail please refer to the Table 2. In year 3, RISE focused on ensuring gender equality in all RISE activities. RISE implemented gender strategies according to local needs and more than the required percentage of female teachers were invited to trainings. As a result, the overall percentage of female participants in the teacher training program has risen from 44% at the end of Year 2 to 48% at the end of Year 3.

District	Primary School Teachers			Middle School Teachers			High School Teachers			Grand Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Bagh	277	397	674	68	93	161	117	67	184	462	557	1,019
Mansehra	337	369	706	69	41	110	159	122	281	565	532	1,097
Muzaffarabad	764	754	1,518	74	65	139	95	85	180	933	904	1,837
Poonch	399	607	1,006	102	101	203	63	24	87	564	732	1,296
Total	1,777	2,127	3,904	313	300	613	434	298	732	2,524	2,725	5,249

Following the initial 12-day training, teachers at all levels engage in peer learning opportunities which are facilitated by RISE. Primary and middle school teachers attend cluster meetings which consist of 6-12 teachers from nearby schools and focus on the application of active learning methods in their classrooms. High school teachers attend subject specific professional development forums (PDFs), which are typically larger groups that meet quarterly to discuss content and pedagogical issues. In Year 3, RISE focused on strategies for sustainability of these activities. Strategies include empowering members to lead their own meetings and to identify and utilize resources within their own community. Every cluster identifies a cluster coordinator and subject leaders for each subject (math, science, English). These cluster leaders are able to organize and conduct cluster meetings in a way that provides teachers with the support they need. In PDFs, a similar process is followed and focal people are identified. The PDFs also work to identify subject experts within their group or from the district who can work with them on more challenging topics. RISE expects

that these cluster-based initiatives and PDFs will lead to more teachers continuing to engage in peer learning activities after the completion of RISE. This year, RISE formed 418 primary and 73 middle clusters as well as 50 high school PDFs. Five-hundred and eighty-two (582) primary and middle clusters completed their year with RISE. Table 3 details the total number of clusters formed through Year 3.

Table 3: Total number of Clusters Formed							
District	Clusters Completed the Training Cycle through Summer 2009			Clusters Formed in Year 3 and Continuing their Monthly Meetings with RISE			
	Primary	Middle	Total	Primary	Middle	High	Total
Mansehra	182	47	229	81	16	10	107
Bagh	78	47	125	94	24	11	129
Muzaffarabad	81	39	120	157	16	19	192
Rawalakot	81	27	108	86	17	10	113
Total	422	160	582	418	73	50	541

The RISE program works with teachers for one year and ends its work with teachers with a follow-up training program. During Year 3, RISE changed the follow-up training, reducing the number of days from 6 to 3. RISE still covers all topics covered in the 6-day however, some topics were moved from the follow-up training to the cluster meetings. RISE implemented this change to introduce topics earlier to allow teachers to practice new techniques while still working with RISE staff. During the reporting period 3,565 primary, middle and high school teachers attended the 3-day follow-up training.

Table 4: Head teachers trained			
District	Male	Female	Total
Bagh	36	48	84
Mansehra	78	49	127
Mzd	74	47	121
Poonch	34	39	73
Total	222	183	405

In order to ensure that head teachers understand and support the use of active learning methods in their schools as well as teachers' attendance in cluster meetings, RISE invites head teachers to participate in 2 days of the 12-day training. During this time, the head teachers observe teaching activities using active learning and are able to participate in model cluster sessions. During Year 3, 405 head teachers attended 2 days of training. The participation of head teachers in the training has resulted in their improved understanding, cooperation and support of RISE activities. Table 4 shows the number of head teachers trained by district in Year 3.

In Bagh and Mansehra districts, RISE also trained volunteer teachers. Volunteer teachers either are working on a daily basis in a school or substitute when the regular teacher is on leave. They were identified by SMCs/PTCs and approved by district education managers. RISE offered a 2-day volunteer training course which covered topics in child-friendly behavior and positive classroom management. In Mansehra 14 (9 male & 5 female) volunteers attended the training and in Bagh, 20 (3 male & 17 female) volunteers attended.

In Year 3, RISE continued its Subh-e-Nau programs. In the Subh-e-Nau programs, students present projects they have made on concepts in science and math. During this past project year, RISE placed an emphasis on the importance of projects' relevance to the curriculum. This resulted in a broader range of projects than was seen in the past and students were better able to describe their projects in ways that illustrated an understanding of the underlying

concepts. Additionally, RISE explored ways in which Subh-e-Nau activities might be sustained. The participation of SMCs/PTCs to provide financial support to the events was emphasized. SMCs/PTCs had booths that sold food and drinks which raised money for their schools while cutting the cost of providing refreshments at the events. Additionally, in some districts, sponsorship from local businesses proved to be very successful. Overall, 13,790 students and 2,028 teachers for 805 schools participated in 143 of Subh-e-Nau events this year.

RISE began opening Learning Resource Centers (LRCs) in all 4 districts. These LRCs are located in schools and are intended to serve as a meeting place for teachers from surrounding schools, communities, and children and as a place to house materials and learning aids that can be utilized in the classroom. Each LRC is managed by an LRC committee usually made up of SMC/PTC members, head teachers, and teachers. The members of this committee take on different roles in the administration of the LRC, including event planning and book and materials circulation. The LRCs in all four districts have recently opened and most are currently the meeting place for clusters and SMCs/PTCs. In Year 4 RISE staff will work with LRC committees, clusters, and SMCs/PTCs to ensure their expanded use so that they can truly benefit the communities they serve.

Table 5: LRC Status			
District	Total	MoUs Signed	Functioning
Bagh	15	15	15
Mansehra	10	10	5
Mzd	41	31	38
Poonch	9	6	7
Total	75	62	65

As RISE enters its final year, the focus will move to the sustainability of Component 2 interventions and philosophies. Through encouraging teachers to conduct their own clusters and communities to take ownership of activities, like Subh-e-Nau events, and the LRCs, it is hoped that these activities will continue to support education. Additionally, RISE has trained over 328 master trainers who have proven to be excellent resources to other teachers in their areas. RISE will continue to work with these trainers and education officials to find ways in which they can carry on serving as resources in teachers' professional development. Finally, RISE will dialogue with the district and State/Provincial levels of education department to explore methods of institutionalizing RISE's Component 2 activities and philosophies.

Component 3: Community Participation in School Management

In Component 3, RISE formed or revitalized and trained 545 SMCs/PTCs during this reporting period. The training of these 545 SMCs/PTCs completed the project target to form or revitalize and train 2300 SMCs/PTCs (for details see Table 6). RISE completed these targets earlier than previously planned for Year 4 in order to have the opportunity for SMCs/PTCs to grow, mature and graduate within the project life. After training in their role and responsibilities and in advocacy skills, all 2300 (100% of the target) SMCs/PTCs developed School Improvement Plans (SIPs). All these SIPs were endorsed by the education department. RISE staff monitored the implementation of SIPs to check the quality and timely completion of tasks regarding small grants.

Table 6: Number of SMCs/PTCs Formed and Trained by RISE in Years 1, 2 & 3

District	Number of SMCs/PTCs formed and trained		
	Male	Female	Total
Bagh	257	243	500
Mansehra	412	288	700
Muzaffarabad	263	337	600
Poonch	228	272	500
Grand Total	1,160	1,140	2,300

In order to gauge the effectiveness of SMCs/PTCs as well as identify areas for improvement, a participatory assessment of SMCs/PTCs was conducted using an *Appreciative Inquiry Tool (AIT)*. The development of SMCs/PTCs is assessed using a set of indicators which include training, record keeping, decision making, meeting regularly, and preparation and implementation of school improvement plans. The assessment reveals that the major accomplishments achieved by SMCs/PTCs include increasing enrollment, implementation of at least one component of their SIPs, the organization of extra-curricular activities, and advocacy with government officials to highlight issues on behalf of their schools. In Year 3, RISE gradually started withdrawal from committees that have reached a certain level of maturity as defined in the AIT and/or have successfully implemented small grants projects.

In Year 3, RISE collected data from 1,218 SMCs/PTCs (639 male and 579 female) using the AIT and 347 SMCs/PTCs (207 male and 140 female) were declared mature as per the basic criteria set for SMC/PTC maturity. These PTCs were formed in accordance with government rules and trained by RISE. They developed and implemented at least one component of their SIPs, kept up-to-date records, advocated for their schools with education officials. Some of them (as per the project objectives) also applied for non-RISE grants.

In this reporting period, RISE organized 99 recognition events. These recognition events provide an opportunity for SMCs/PTCs to share their progress and achievements with the larger community, motivate other committees to work for the betterment of schools, and strengthen the working relationship between communities and education officials. These kinds of events inculcate a sense of ownership among committee members which, in turn, further motivates them to work for the promotion of quality education in their schools. In addition, RISE held 8 district level seminars (2 in Bagh, 3 in Muzaffarabad, 1 in Poonch and

2 in Mansehra) to raise awareness on issues related to girls' education among the general population.

RISE undertook proactive measures to achieve gender parity in all components' activities in Year 3. To support this initiative, RISE developed gender strategies for the three components and guided staff in their implementation. The gender strategies undertaken by RISE have proven to result in a remarkable increase in women and girls' participation in Year 3 activities carried out by all components. Altogether 49.5% of the 2300 SMCs/PTCs trained by RISE are for girls' schools. In order to increase female representation in SMCs, RISE adopted a strategy of 'honorary membership'. RISE encouraged SMCs to replace male members who were inactive, unmotivated or not living in the village with women members, especially in girls' schools. In the last quarter of the year, 482 women were added to 115 SMCs for girls' schools and 95 SMCs for boys' schools. RISE will continue to apply this approach to continue to increase female participation in SMCs.

Monitoring and Evaluation

In Year 3 RISE continued to track and report progress on the Performance Monitoring Plan indicators and guide colleagues in monitoring project progress, when appropriate and in the preparation of reports. In addition, RISE continued its work on two longitudinal studies in RISE-targeted schools. An interim test for the student assessment and post teacher observation study in Bagh, Mansehra and Muzaffarabad was administered in January-February 2009. In Year 3, data collection for the follow up on the teacher absenteeism study took place in November 2008 and May 2009.

The post test of RISE's teacher observation and the interim test of student achievement study were conducted simultaneously in January - February 2009. In the initial design, the first post-test was supposed to be conducted in April 2009; however, it was administered in January-February 2009 to adapt to the recent change in school year in Pakistan (i.e., April-March for both summer and winter zone schools). Only students of summer zone schools were included in this interim test. For this interim test, students did not have an adequate opportunity (only 5 months) to complete the school year because of the recent school year change in Pakistan. Despite the short school year, students in grade 4 showed some improvement from the baseline to the interim test. In contrast, grade 8 results are almost the same for interim and baseline.

Results from the post study showed that, overall, teachers in both grade 4 and 8 performed substantially better in the post teacher training classroom observations than their baseline performance. In most cases, they were rated either *satisfactorily* or *excels* in the post-test as opposed to *unsatisfactory* or *satisfactory* in the baseline (See Annex A).

RISE's teacher absenteeism study is a sample-based, longitudinal study conducted on a biannual basis. In the study, RISE assesses frequencies and patterns in teacher absenteeism in two target districts: Bagh and Mansehra. Teachers' absenteeism data were collected through School Management Committees (SMCs) and Parent-Teacher Councils (PTCs) in November 2008 and May 2009. In November 2008, data on 2140 teachers were collected from the two districts; 1069 from Bagh and 1071 from Mansehra. Data analysis showed a decrease in teacher absenteeism from the baseline results in both districts.

In May 2009, SMCs and PTCs recorded the attendance of 2,176 teachers for a total of six working days. Results of the May 2009 follow up show improvement in teacher attendance in both districts, as compared to the baseline results in 2007. Overall, teacher attendance was greater than 85 percent. In Mansehra, teacher absenteeism decreased to 1 in 8 teachers (2009) as compared to 1 in 4 teachers (2007). Similarly, in Bagh, teacher absenteeism decreased to 1 in 7 teachers from 1 in 5 teachers.

RISE has found that two key factors are associated with teacher absenteeism: the distance of teachers' residence from the schools and the gender of the teacher. While there was an overall reduction in absenteeism of both male and female non-local teachers, absenteeism is found to be consistently higher among non-local teachers than local teachers in both districts. Male teachers were found to be present in schools at relatively higher rates than women. When the male and female teacher absenteeism data was disaggregated by distance from the school, the disparity between rates of absenteeism among male and female local teachers was only three percent in both the districts. The disparity between male and female non-local

teachers' rates of attendance was quite high, at 16 percent in Mansehra and 11 percent in Bagh (See Annex B for additional information).

RISE Project Progress for Year 3 (August 2008 to July 2009)

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
IR 8.4: Education System Strengthened					
Student achievement	April-May 2008	Percentage of students falling under the satisfactory category: For grade 4: <ul style="list-style-type: none"> • English: 20 % • Mathematics: 20 % • Science: 24 % For grade 8: <ul style="list-style-type: none"> • English: 16 % • Mathematics: 20 % • Science: 24 % <i>Note: Tests were based on the whole syllabus and students were tested after 9 months of schooling.</i>	Annually	10% over the baseline	Full scale post-test is postponed to November 2009 (winter zone) and January-February 2010 (Summer zone) due to change in school year.
Teacher absenteeism	July-Dec 2007	Bagh: 1 in 5 teachers absent Mansehra: 1 in 4 teachers absent	Annually	Raise by 15% of the teachers in target schools	Results of 1st bi-annual study 2008 Bagh: 1 in 7 teachers absent Mansehra: 1 in 6 teachers absent Results of 2nd bi-annual study 2008 Bagh: 1 in 5 teachers absent Mansehra: 1 in 6 teachers absent

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
					Results of 1st bi-annual study 2009 Bagh: 1 in 7 teachers absent Mansehra: 1 in 8 teachers absent
Component 1: Management Capabilities at the District Level Improved					
Level of effective management: 0-District officials show no evidence or interest in the area. 1- There is evidence of awareness and interest in the area but district officials don't take active measure for implementation. 2- There is evidence of some ability in the area; however district officials are not able to use it in an effective manner. 3- There is evidence of some ability in the area and district officials take active measure for implementation 4- There is evidence of strong ability in the area and district official do their utmost to put it in practice.	Sep-07 for Bagh (B.) and Mansehra (Mans.) Jul-08 for Muzaffarabad (Muz.) and Poonch (P.)	Level of effective management: 1. Financial management and budgeting: B: 0.5 Mans: 0.5 Muz: 0.7 P: 0.8 2. Personnel management: B: 0.7 Mans: 1.3 Muz: 0.7 P: 0.8 3. Planning and development: B: 0.5 Mans: 0.5 Muz: 1.3 P: 1 4. School supervision and support: B: 0.7 Mans: 0.7 Muz: 0.7 P: 0.7	Annually	To achieve a level of 3 in all 6 categories.	Results of June-July 2009 study Level of effective management: 1. Financial management and budgeting: B: 2.4 Mans: 2.3 Muz: 2.1 P: 1.7 2. Personnel management: B: 2.6 Mans: 2.5 Muz: 1.9 P: 2.3 3. Planning and development: B: 2.7 Mans: 2 Muz: 1.8 P: 1.9 4. School supervision and instructional support: B: 2.7 Mans: 2.4 Muz: 2.1 P: 2.6 5. SMC/PTC support:

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
		5. SMC/PTC support B: 0.3 Mans: 0.3 Muz: 0.5 P: 0.5 6. Teacher training B: 0 Mans: 0 P: 0.5 Muz: 0.5			B: 3 Mans: 2.6 Muz: 2.2 P: 1.9 6. Teacher training: B: 2.4 Mans: 1.4 Muz: 1.2 P: 1.8 (Next follow up will be conducted in February-March 2010 for all 4 districts)
Expected outcome 1.1: Improved financial and human resource management at district level					
1.1.1: Established district-level steering committees					
a) Steering committee meetings held	Feb-07 for B & Mans Mar-08 for Muz & P	No steering committee	Quarterly	One steering committee meeting per quarter	35 steering committee meetings (8 in Bagh, 8 in Mansehra, 9 in Muzaffarabad and 10 in Poonch) were held. Target met.
b) Percentage participation in steering committee meetings	Apr-07 for B and Mans June-08 for Muz and P	No steering committee	Quarterly	80% participation	In steering committee meetings, on average 92 % in Bagh, 90 % in Mansehra, 88 % in Muzaffarabad and 86 % in Poonch were present. Target met.
c) Number of recommendations for improved financial or human resources	April/ May 07 for B and Mans	No recommendation	Quarterly	At least one recommendation per year	<ul style="list-style-type: none"> In AJ&K districts separate budgets for DDEOs were allocated by the finance department, according to the recommendations taken in SC meetings In Muzaffarabad science material worth Rs. 1.5 million was distributed to 30 high schools. In Mansehra, at the request of

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
					<p>the SC, the district government agreed to provide Rs. 4.1 million, and ERRA committed 10,000 CGI sheets for the construction of 51 shelter-less schools.</p> <ul style="list-style-type: none"> • In Mansehra, through advocacy of SC, the district government allocated Rs. 8.474 million for construction, water supply, external electrification, CGI sheets and salaries of teachers on a temporary basis. Furthermore, Rs.17.01 million is allocated for PTCs for school improvements. In ADP of district Mansehra, provincial government allocated Rs. 15 million to fulfill school needs. • In Poonch, at recommendation of SC, science lab equipment of Rs. 0.36 million for four high schools (2B & 2G) was delivered.
1.1.2: Improved skill sets of education managers					
a) Percentage of education managers trained in management skills	Apr. 07 for B and Mans	0%	Annually	100%	83 out of 93 district education officials completed training on <i>oversight of SMCs/PTCs</i> in the target districts; 18 (16M & 2F) out of 21 in Bagh, 26 (20M & 6F) out of 30 in Mansehra, 23 (17M & 6F) out of 25 in Muzaffarabad and 16 (13M & 3F) out of 17 in Poonch.

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
b) Percentage of teachers receiving a supportive visit from ADO/AEO	Apr. 07 for B and Mans	0%	Annually	20%	
1.1.3: Improved financial management					
a) Percentage of education managers trained in financial planning and management	Apr. 07 for B and Mans	0%	Annually	100%	82 out of 93 district education officials completed training on Financial Management and Budgeting ; 18 (16M & 2F) out of 21 in Bagh, 26 (20M & 6F) out of 30 in Mansehra; 23 (17M & 6F) out of 25 in Muzaffarabad and 15 (12M & 3F) out of 17 in Poonch
b) Budgeted amounts for schools reach the schools	Apr. 07 for B and Mans	0%	Annually	70% of funding intended for schools reaches schools	In Mansehra, the budgeted amount Rs. 67.4 million (100%) funds for PTC empowerment, Rs.2.578 M for furniture (100%),1.5 M to repair and maintenance (100%),0.125M for boundary walls (100%),0.35 M for electricity(100%),0.55 M for shelters(100%) and 0.8 M for drinking water (100%),were disbursed to schools. In AJ&K districts 0.41 M in Bagh, Rs 0.63 M million in Muzaffarabad, and Rs 0.53 M in Poonch (100%) allocated for science equipments were distributed to the schools
1.1.4: Improved implementation of human resource policies					

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
Number of district-level changes to effect more efficient implementation of human resource policies	Apr. 07 for B and Mans	None	Quarterly	1 per year	<p>Existing teacher deployment policies and their implementation reviewed in all AJ&K target districts. Need of gender equity in district officials' hiring/deployment is emphasized in all 4 districts. Donors' coordination with education managers in order to conduct joint school visits continued in target districts of AJ&K. Teacher absenteeism remained the main focus in all 4 districts. To address the absenteeism problem, frequency of the education managers' school visits is increased and capacity of education managers in monitoring and supervision built.</p> <ul style="list-style-type: none"> In Mansehra, on account of absenteeism 8 primary teachers were terminated while the cases of 38 teachers and 9 support staff are being investigated. Job description of ADOs was also reviewed. Meetings were held in Mansehra with DTW, DSP, NGOs and government officials to develop viable strategies for devolution of financial and administrative authorities. 195 (126M & 69F) vacant posts of primary, middle and high teachers were identified. Recruitment of 106 teachers

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
					<p>(61M & 45F) completed.</p> <ul style="list-style-type: none"> In Bagh, AEOs circles reviewed in Dhirkot and Haveli tehsils. 25 (M) single teacher schools were transferred to different AEOs on the basis of geographical location and accessibility. Moreover, using EMIS data DEO Elementary (M) advertised 15 (M) vacant positions of primary teachers. 55 cases of absenteeism were identified, departmental inquiries in process. SC forwarded recommendation for the replacement of male AEOs working in female positions. 16 non-functional schools were identified and 33 teachers were transferred. In Muzaffarabad, DEOs fixed a day for smooth disbursement of salaries of teachers. In Muzaffarabad 23 (10M & 13F) teachers were transferred because of absenteeism. SC emphasized the use of School Supervision Checklist by head teachers of middle and high schools. 147 vacant positions of teachers were identified and advertised for recruitment and 184 teachers were transferred on

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
					<p>a need basis.</p> <ul style="list-style-type: none"> In Poonch, disciplinary actions were taken against 79 (35M & 44F) primary teachers and 4 head teachers due to frequent absenteeism and inappropriate record keeping. 25 (20M & 5F) primary and 60 (30M & 30F) middle school teachers were promoted, and 131 (93M & 38F) new primary teachers were appointed. The SC also recommended the equitable reallocation of schools between male and female AEOs in Abbaspur. SC forwarded recommendation to replace of male AEOs working in female positions with women.
1.1.5: Improved Management of Donors					
a) Donor project data reviewed	May 07 for B and Mans Mar. 08 for Muz and P	None	Quarterly	Yes	In 32 steering committee meetings (6 in Bagh, 7 in Mansehra, 9 in Muzaffarabad and 10 in Poonch) the donors' data were reviewed. Target met.
b) Donor projects directed to appropriate geographical areas for implementation	May/ June 07 for B and Mans Mar 08 for Muz and P	None	Quarterly	Yes	UNDP, UNICEF, DFID, DTW, CESSD, DTCE, ROTA, DSP, CARE International, Cordaid International, ENGAGE, HRSP, UNESCO, ADB-SEC, HiN, Qaritas, MNGPO, FRIEND Pakistan, ORA, NCHD, Lead, SCS and RDO were provide guidance in Mansehra.

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
					<p>In AJ&K education managers identified schools in which RISE/DFID established 60 of 65 planned LRCs and provided teaching/learning materials and furniture in AJ&K districts. Five out of 10 planned LRCs were established in Mansehra. Locations were identified by the education managers.</p> <p>At the request of SCs and district education officials, DRUs provided tents and CGI sheets in AJ&K districts; 207 tents in Muzaffarabad, 90 tents and 860 CIG sheets in Bagh and 130 tents along with 1300 CGI sheets in Poonch.</p> <p>In Bagh, Hope-87 agreed to support the education department in establishing a vocational education center. ENGAGE organized training on inclusive education to address the needs of special children.</p> <p>Data from NCHD projects on UPE (adult literacy and feeder schools) were reviewed by the SC and NCHD was given approval to move forward.</p> <p>In Mansehra Cordaid International</p>

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
					<p>reported completion on the construction of 11 schools. UNICEF and the district government shared their plans for construction of 160 and 51 school shelters respectively; the SC identified 211 schools requiring shelters.</p> <p>Education managers held meetings with WFP and BEST to finalize the criteria for distribution of oil and wheat at schools. In Muzaffarabad UNICEF reported progress on establishing ECCD centers at SC-recommended venues. NCHD reopened 91 feeder schools in consultation with district education management.</p> <p>DRU, CRS, SEC-ADB and UNESCO reported progress on construction of allocated school building projects.</p> <p>In AJ&K districts, SCs are providing vital support through district officials in identifying teachers for RISE and ADB-SEC teacher training programs. In Muzaffarabad, SC identified 20 high schools for construction by UNESCO. RISE was asked to train teachers and engage in community development work in</p>

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
					<p>these schools.</p> <p>In Poonch, at the SC's request, HiN conducted a series of workshops on School Hygiene Promotion; these benefited 516 (233M & 283F) teachers. Moreover, SEC-ADB trained 200 (88M & 112F) teachers on mentoring and organized workshops for 100 SMCs to support school construction processes.</p> <p>NCHD re-appointed 12 female feeder school teachers at the recommendation of the SC. HiN organized there sessions on hygiene at schools. ADB reported progress in developing SIPs at 91 schools.</p>
Expected outcome 1.2: Improved use of education data in decision making					
a) District steering committees review EMIS data on schools at each meeting	Apr. 07 for B and Mans Mar 08 for Muz and P	0	Quarterly	Yes	In 32 steering committee meetings (7 in Bagh, 7 in Mansehra, 8 in Muzaffarabad and 10 in Poonch) the EMIS data was reviewed. Target met.
b) Education managers use EMIS data in personnel management	March/ April 07 for B and Mans March/April for Muz and P	0	Annually	Yes	In all four districts, the EMIS data were used for identification of non-functional schools, deployment of teachers to nearby schools, identification of vacant teacher positions and subsequent recruitment, development of need-

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
					based school budgets, distribution of textbooks, finalization of seniority lists of teachers, dealing with land issues, up-gradation of schools and in-service training for teachers.
Expected outcome 1.3: Improved implementation of coherent in-service teacher training system					
a) Approved plan for in-service teacher training system in use	March/ April 07 for B and Mans	No plan	Annually	Plan developed, approved and in use	RISE plan approved and in use. Target met.
b) In-service training linked to pre-service training program	March/ April 07 for B and Mans	No link between pre-service and in-service training program	Annually	Link between pre-service and in-service training programs	Lists of RISE trained materials developers and master trainers in each district shared with the education managers. Coordination meetings of education managers and staff of in-service & pre-service teacher training institutes were held for further planning to develop / strengthen the links between both streams.
Component 2: Quality of Classroom Teaching Improved					
Percentage of trained teachers using child-centered techniques	Apr. 07 for B and Mans	Overall scores obtained on teacher observation indicators for grades 4 & 8 respectively: <ul style="list-style-type: none"> • Active learning teaching = 25 & 24 % • Lesson plan = 20 & 23 % • Traditional teaching technique = 23 & 28 	Annually	40% of RISE trained teachers	Results of post teacher observation (after summer zone school teacher training) Overall scores obtained on teacher observation indicators for grades 4 & 8 respectively: <ul style="list-style-type: none"> • Active learning teaching = 36% & 47% • Lesson plan = 48% & 59% • Interactive technique = 62% & 66%

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
		% • Content knowledge = 26 & 35% • Teacher student relation = 62 & 60% • Positive teaching behavior = 39 & 37%			• Content knowledge = 55% & 68% • Teacher student relation = 71% & 72% • Positive teaching behavior = 52% & 58%
Expected outcome 2.1: Train 10,000 teachers					
Number of teachers trained	Oct. 06 for B and Mans	0	Following completion of each initial training	Total 10,000 teachers (2,000 in B., 3,000 in Mans., 3,000 in Muz. and 2,000 in P.) Year 1 = 300 teachers (100 in B. and 200 in Mans.) Year 2 = 3,750 (500 in B., 1,500 in Mans., 1,000 in Muz. and 750 in P.) Year 3 = 4,500 (1,000 in B., 1,000 in Mans., 1,500 in Muz. and 1,000 in P.) Year 4 = 1,450 (400 in B., 300 in Mans., 500 in Muz. and 250 in P.)	Year 1: Trained 355 teachers (184 male and 171 female). Bagh – 110 teachers (51 male and 59 female) Mansehra – 245 teachers (133 male and 112 female) Year 2: Trained 4,194 teachers (2,356 male and 1,838 female). Bagh – 887 teachers (505 male and 382 female) Mansehra – 1,689 teachers (928 male and 761 female) Muzaffarabad – 947 (544 male and 403 female) Poonch – 671 teachers (379 male and 292 female) Year 3: Trained 5,249 teachers (2,725 male and 2,524 female). Bagh – 1,019 teachers (462 male and 557 female) Mansehra – 1,097 teachers (565 male and 532 female)

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
					Muzaffarabad – 1837 (933 male and 904 female) Poonch – 1296 teachers (564 male and 732 female)
Expected outcome 2.2: Establish and implement a sustainable system of teacher instructional support					
a) Percentage of teachers attending cluster meetings	Oct. 06 for B and Mans	0%	Quarterly	75%	75% of primary and middle school teachers are attending monthly cluster follow-up meetings. Target achieved.
b) Number of schools providing peer engagement activities after completion of RISE involvement	Oct. 06 for B and Mans	0	Quarterly	10%	76 out of 191 mature clusters were conducting their monthly cluster meetings on their own; 68 out of 134 in Mansehra, 5 out of 43 in Bagh, 2 out of 8 in Muzaffarabad and 1 out of 6 in Poonch.
c) Number of schools participating in the Subh-e-Nau initiative	Oct. 06 for B and Mans	0	Annually	320 schools will participate in Subh-e-Nau activities every year (60 in Bagh, 100 in Mansehra, 100 in Muzaffarabad and 60 in Poonch)	101 events organized (9 in Bagh, 76 in Mansehra, 6 in Muzaffarabad and 10 in Poonch) in which 605 schools (196 male and 409 female) participated; 64 schools in Bagh (29 male and 35 female), 267 schools in Mansehra (146 male and 121 female), 126 in Muzaffarabad (55 male and 71 female) and 148 in Poonch (76 male and 72 female).
d) Number of improved Learning Resource Centers (LRCs)	Oct. 06 for B and Mans	0	Annually	75 LRCs will be established or improved [15 in Bagh (6 by RISE and 9 joint with DfID), 10 in Mansehra, 41 in Muzaffarabad and 9 in Poonch]	65 LRCs are functional (5 in Mansehra, 15 in Bagh, 38 in Muzaffarabad and 7 in Poonch). 62 MoUs were signed (10 in Mansehra, 15 in Bagh, 31 in Muzaffarabad and 6 in Poonch) by RISE and education department.

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
e) Number of teachers who have visited their LRC at least once in a quarter	Oct. 06 for B and Mans	0	Annually	25%	There is a total of 1,899 RISE-trained teachers in the catchment area of these 65 established LRCs. 25% of these teachers are using these LRCs, except in Mansehra. Due to school holidays the teachers did not use this facility.
Component 3: Community Participation in School Management Increased					
a) Number of SMCs/PTCs trained in SMC/PTC management and the development of school improvement plans (SIPs)	April/ May 07 for B and Mans	0	Post-training	2,300 SMCs/PTCs (500 in B., 700 in Mans., 600 in Muz. and 500 in P.) Year 1 = 60 (20 in B. and 40 in Mans.) Year 2 = 1,100 (200 in B., 450 in Mans., 250 in Muz. and 200 in P.) Year 3 = 1,140 (280 in Bagh, 210 in Mansehra, 350 in Muzaffarabad and 300 in Poonch)	Year 1: 57 SMCs/PTCs (26 in Bagh and 31 in Mansehra) trained. Year 2: 1,090 SMCs/PTCs (207 in Bagh, 455 in Mansehra, 342 in Muzaffarabad and 86 in Poonch). Year 3: 1,153 SMCs/PTCs (449 male and 704 female). Bagh – 267 SMCs (106 male and 161 female) Mansehra – 214 PTCs (72 male and 142 female) Muzaffarabad – 258 SMCs (91 male and 167 female). Poonch – 414 SMCs (180 male and 234 female). Target met.

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
b) Percentage of SMCs/PTCs implementing at least one component of their school improvement plan (SIP)	April/ May 07 for B and Mans	0	Bi-annually	90% of SMCs/PTCs (2,070 SMCs/PTCs) Year 2 = 1,044 SMCs/PTCs (198 in B., 441 in Mans., 225 in Muz. and 180 in P.) Year 3 = 774 SMCs/PTCs (180 in B., 189 in Mans., 225 in Muz. and 180 in P.) Year 4 = 252 SMCs/PTCs (72 in B., 90 in Muz. and 90 in P.)	1,427 SMCs/PTCs (726 male and 701 female) implemented at least one component of their school improvement plans (SIPs). Bagh – 261 SMCs (122 male and 139 female), Mansehra – 407 PTCs (260 male and 147 female), Muzaffarabad – 600 SMCs (263 male and 337 female) and Poonch – 159 SMCs (81 male and 78 female) implemented at least one component of their SIP on a self-help basis.
c) Percentage of SMCs/PTCs applying for other non-project grants	April/ May 07 for B and Mans	0	Bi-annually	25% of trained SMCs/PTCs(575) applying for other non-project grants successfully Year 3 = 350 (75 in B., 100 in Mans., 100 in Muz. and 75 in P.) Year 4 = 225 (50 in B., 75 in Mans., 50 in Muz. and 50 in P.)	973 SMCs/PTCs (440 male and 533 female) applied for non-RISE grants to other organizations. Bagh – 281 SMCs (155 male and 126 female), Mansehra –142 PTCs (63 male and 79 female), Muzaffarabad – 510 SMCs (205 male and 305 female) and Poonch – 40 SMCs (17 male and 23 female) developed linkages with other organizations. Target met.
Expected outcome 3.1: Increased capacity of community to participate in educational decisions					
a) Number of SMCs/PTCs established/strengthened	April/ May 07 for B and Mans	0	Post-training	2,300 SMCs/PTCs (500 in B., 700 in Mans., 600 in Muz. and 500 in P.)	Year 1: 73 SMCs/PTCs formed (30 in Bagh and 43 in Mansehra).

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
				<p>Year 1 = 60 (20 in B. and 40 in Mans.)</p> <p>Year 2 = 1,100 (200 in B., 450 in Mans., 250 in Muz. and 200 in P.)</p> <p>Year 3 = 1,140 (280 in B., 210 in Mans., 350 in Muz. and 300 in P.)</p>	<p>Year 2: 1,682 SMCs/PTCs formed (399 in Bagh, 448 in Mansehra, 600 in Muzaffarabad and 235 in Poonch).</p> <p>Year 3: 545 SMCs/PTCs (212 male and 333 female) formed. Bagh – 71 SMCs (36 male and 35 female) Mansehra – 209 PTCs (70 male and 139 female), Poonch – 265 SMCs (106 male and 159 female) and Muzaffarabad completed in year 2. Target met.</p>
b) Percentage of SMCs/PTCs that have developed SIPs	April/ May 07 for B and Mans	0	Quarterly	<p>2,300 SMCs/PTCs will develop SIPs</p> <p>Year 2 = 1,160 (220 in B., 510 in Mans., 250 in Muz. and 200 in P.)</p> <p>Year 3 = 1140 (280 in B., 210 in Mans., 350 in Muz. and 300 in P.)</p>	<p>Year 2: 833 SIPs developed (213 in Bagh, 366 in Mansehra, 152 in Muzaffarabad and 102 in Poonch).</p> <p>Year 3: 1,467 SIPs (651 male and 816 female) were developed. Bagh – 287 SIPs (127 male and 160 female) Mansehra – 334 SIPs (175 male and 159 female) Muzaffarabad – 448 SIPs (185 male and 263 female) and Poonch – 398 SIPs (164 male and 234 female). Target met.</p>
c) Percentage of SMCs/PTCs holding required meetings	April/ May 07 for B and Mans	0	Quarterly	80% hold at least 5 monthly meetings in one year	More than 80 % SMCs/PTCs are holding their follow-up monthly meetings. Target met.

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
d) Number of education officials trained in importance of community participation	Apr. 07 for B and Mans	Score of 1 (means education managers understand the importance of community participation in ensuring quality education and believe in the idea of SMCs/PTCs	Post-training	100%	Till now, 83 out of 93 district education officials completed training on <i>oversight of SMCs/PTCs</i> in the target districts; 18 (16M & 2F) out of 21 in Bagh, 26 (20M & 6F) out of 30 in Mansehra, 23 (17M & 6F) out of 25 in Muzaffarabad and 16 (13M & 3F) out of 17 in Poonch. This includes 7 newly appointed education managers; 1 in Muzaffarabad and 6 in Poonch. Target met.
Expected outcome 3.2: Help School Management Committees/Parent-Teachers Councils to acquire effective advocacy skills					
a) Number of SMCs/PTCs trained on advocacy skills	April/ May 07	0	Following completion of each training	2,300 SMCs/PTCs (500 in B., 700 in Mans., 600 in Muz. and 500 in P.) 2,300 SMCs/PTCs will be trained Year 1 = 60 (20 in B. and 40 in Mans.) Year 2 = 1,100 (200 in B., 450 in Mans., 250 in Muz. and 200 in P.) Year 3 = 1140 (280 in B., 210 in Mans., 350 in Muz. and 300 in P.)	Year 1: 57 SMCs/PTCs (26 in Bagh and 31 in Mansehra) trained. Year 2: 1,090 SMCs/PTCs (207 in Bagh, 455 in Mansehra, 342 in Muzaffarabad and 86 in Poonch). Year 3: 1,153 SMCs/PTCs (449 male and 704 female). Bagh – 267 SMCs (106 male and 161 female), Mansehra – 214 PTCs (72 male and 142 female), Muzaffarabad – 258 SMCs (91 male and 167 female), and Poonch – 414 SMCs (180 male and 234 female). Target met.
b) Percentage of target SMCs/PTCs advocating to	Oct. 06	0	Annually	50 % of those actively working with RISE	998 SMCs/PTCs (562 male and 436 female) advocated their

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
government officials on behalf of their schools					school related issues to the education departments. Bagh – 68 SMCs (43 male and 25 female), Mansehra – 494 PTCs (306 male and 188 female), Muzaffarabad – 237 SMCs (113 male and 124 female), and Poonch – 199 SMCs (100 male and 99 female) were highlighted their school related issued to education officials during these meetings.
Expected outcome 3.3: Establish and implement small grant program to support SMCs/PTCs					
a) Number of SMCs/PTCs submitting applications for RISE's small grants	Jul. 07 for B. and Mans.	0	Quarterly	45 % (1,035) of total trained (2,300) SMCs/PTCs (275 in Bagh, 400 in Mansehra, 200 in Muzaffarabad and 160 in Poonch) Year 2 = 110 (50 in Bagh and 60 in Mansehra) Year 3 = 925 (225 in Bagh, 340 in Mansehra, 200 in Muzaffarabad and 160 in Poonch)	1,035 applications (517 male and 518 female); 400 in Mansehra (200 male and 200 female), 275 in Bagh (137 male and 138 female), 200 in Muzaffarabad (100 male and 100 female) and 160 in Poonch (80 male and 80 female) submitted by SMCs/PTCs for RISE small grants.
b) Number of RISE small grants issued	Jul. 07 for B. and Mans.	0	Bi-annually	45 % (1,035) of total trained (2,300) SMCs/PTCs (275 in Bagh, 400 in Mansehra, 200 in Muzaffarabad and 160 in Poonch) Year 2 = 110 (50 in Bagh and 60 in Mansehra) Year 3 = 925 (225 in Bagh, 340 in Mansehra, 200 in	Year 2: 91 small grants disbursed (36 in Bagh and 55 in Mansehra). Year 3: 808 small grants (394 male and 414 female) issued Bagh – 239 small grants (112 male and 127 female), Mansehra – 216 small grants (122

Indicators	Baseline date	Baseline results	Follow-up	Project Goal	Status
				Muzaffarabad and 160 in Poonch)	<p>male and 94 female), Muzaffarabad – 197 small grants (88 male and 109 female), and Poonch – 156 small grants (72 male and 84 female) were issued first installments.</p> <p>476 SMCs/PTCs (291 male and 185 female) were issued 2nd installment</p> <p>Bagh – 191 SMCs (95male and 96 female), Mansehra – 197 PTCs (144 male and 53 female) Muzaffarabad – 72 SMCs (42 mal and 30 female), and Poonch – 16 SMCs (10 male and 6 female) were issued their 2nd installment.</p>
c) Number of SMCs/PTCs that have successfully implemented RISE small grants	Jul. 07 for B. and Mans.	0	Bi-annually	<p>45 % (1,035) of total trained (2,300) SMCs/PTCs (275 in Bagh, 400 in Mansehra, 200 in Muzaffarabad and 160 in Poonch)</p> <p>Year 2 = 110 (50 in Bagh and 60 in Mansehra)</p> <p>Year 3 = 925 (225 in Bagh, 340 in Mansehra, 200 in Muzaffarabad and 160 in Poonch)</p>	<p>Year 3: 127 SMCs/PTCs (82 male and 45 female) successfully completed their small grant projects.</p> <p>Bagh – 83 SMCs (47 male and 36 female), Mansehra – 29 PTCs (25 male and 4 female), and Muzaffarabad – 15 SMCs (10 male and 5 female).</p>

Annex A
Students Assessment and Teachers'
Classroom Observation



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Revitalizing, Innovating, Strengthening Education

Revitalizing, Innovating, Strengthening Education (RISE)

A PROJECT SPONSORED BY THE
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)-
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POST-EARTHQUAKE EDUCATION RECOVERY PROGRAM

Results of the January- February 2009 Post-Test of Teacher Classroom Observation and Student Assessment

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AMERICAN INSTITUTES FOR RESEARCH
INTERNATIONAL RESCUE COMMITTEE
SUNGI DEVELOPMENT FOUNDATION
NATIONAL RURAL SUPPORT PROGRAM
SARHAD RURAL SUPPORT PROGRAM

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Executive Summary

The purposes of student assessment and teacher classroom observation in RISE are to (1) develop systems for measuring student learning outcomes and train Pakistani specialists, and (2) gauge impacts of project interventions, including improved teaching-learning processes in targeted schools. Through rigorous measurement and evaluation design, student achievement and teacher classroom observation data were collected annually, starting in 2008 and continuing through 2010. The 2008 study serves as the baseline, and two post-tests will be conducted in 2009 and 2010.

Although the first post-test was scheduled to be conducted in April 2009, it was administered in January - February 2009 to adapt to the recent change in the school year (April –March for both summer and winter zone schools) in Pakistan. Prior to the January-February test administration, the teachers who were trained in the Summer 2008 had about five months to provide classroom instruction. Teachers who were trained in Winter 2009 had not begun their classes at the time of the assessment. Therefore, teachers in the summer zone schools (who were trained in summer 2008) and their students in grade 4 and 8 were included in the interim test. Note that the baseline data were also collected from those same teachers and their students back in 2008.

A sample of 124 summer zone schools were visited in the post-test data collection, out of which 35 were in Bagh, 52 in Muzaffarabad, and 37 in Mansehra. A total of 132 teachers from the 124 schools were observed. In general, teachers in both grades 4 and 8 showed outstanding improvement in all six cluster variables. In some cases, teachers of grades 4 and 8 even obtained more than double their baseline scores in the interim test (e.g., *active learning teaching, lesson planning, presentation technique, and content knowledge*). In the post-teacher classroom observation, most teachers who were rated *unsatisfactory* or *satisfactory* in the baseline were rated either *satisfactory* or *excels* in all six cluster variables. When teachers' performance was compared by district, it was also revealed that teachers in Bagh improved most, followed by teachers in Muzaffarabad and Mansehra. In a gender-wise comparison, the grade 4 male teachers received consistently higher scores than the female teachers in all six cluster variables whereas for grade 8 they both received very similar scores.

With regard to the student assessment, although students did not have adequate opportunity to acquire all the expected grade level knowledge, skills, and abilities because of the recent school year change in Pakistan, students in grade 4 have even shown some improvement. Students in grade 4 had the highest improvement from the baseline to the interim test in English followed by mathematics and then science. In contrast, students in grade 8 did not perform well on the interim test. Grade 8 students' scores in the interim test slightly declined in English and science and showed about no improvement in the mathematics.

Upcoming activities for student assessment and teacher classroom observation study are scheduled in November 2009 for the winter zone schools and in January-February 2010 for the summer zone schools. By that time, teachers who were trained in 2008 and 2009 will have had a full school year to use the teaching and learning processes (that they were trained on) in their classroom instruction. The additional months provides the time to acquire more robust information about the impact of RISE teacher training on student learning outcomes and teachers' classroom behavior.

Results of the January-February, 2009 Post-Test of Teacher Classroom Observation and Student Assessment

I. Introduction

In the USAID-Pakistan monitoring and evaluation framework, student learning outcomes are a high-level indicator for the RISE project. A proven approach to measuring learning outcomes in terms of validity, reliability, and practicality, is curriculum-based, criterion-referenced achievement testing.¹ A set of such criterion-referenced tests was administered in April-May, 2008 to set the baseline and January-February, 2009 (as the interim post test) for student achievement.

Concurrently with the student achievement testing, a teacher classroom observation study was also conducted. In the teacher observation study, teachers were observed in their classrooms twice, once before they received training from RISE (constituted the baseline measures) and then five months after the training (representing post-test measures). The sample teachers were observed and rated using a project-developed survey form while they were providing classroom instruction.

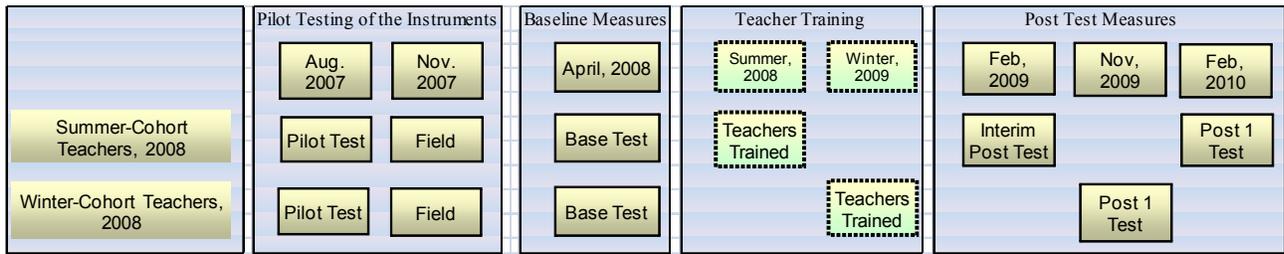
The baseline and interim student assessment and post teacher observation studies were conducted in three districts located in northwestern Pakistan: Mansehra district in the North West Frontier Province (NWFP) and Bagh and Muzaffarabad districts in Azad Jammu & Kashmir (AJK).

II. Methods

Design: The RISE project evaluation design uses multi-year achievement data for students in grades 4 and 8 in English, mathematics, and science to assess intervention effects. The evaluation features a cross-sectional design, with a baseline and two post-tests (i.e., three data collection points). Based on the initial design, the first post-test was supposed to be conducted in April 2009, however, it was administered in January-February 2009 (and should be considered interim for student assessment) to adapt to the recent change in school year in Pakistan (i.e., April–March for both summer and winter zone schools). The full scale post-test will be administered in November 2009 for winter zone schools (before they close for winter vacation in December-February) and January-February 2010 for summer zone schools.

¹ See Kellaghan, T., & Greaney, V. (2003). *Monitoring performance: Assessment and examinations in Africa*. Grand Baie, Mauritius: ADEA Biennial Meeting.

Figure 1: Research Design



Subsequent measurements in 2009 and 2010 on teachers and students will be taken from the same schools and classroom after the teachers are trained. The students will change each year, but teachers and grade levels will stay the same. This will provide a cross-sectional design to examine the effects of project-supported teacher training on student achievement and teaching-learning processes.

Sample Schools: The school year in Pakistan was changed in 2008. Now, the summer zone and winter zone schools have the same school year (April to March). Although the first post-test was supposed to have been conducted in April 2009, it was administered in January-February 2009 to adapt to this change in school year. The teachers who were trained in summer 2008 had about five months to practice the teaching processes (that they had been trained on) in their classroom instruction; the teachers who were trained in Winter 2009 had no time to use the new techniques in their classroom instruction before the January-February 2009 test administration. Therefore, only the teachers in the summer zone schools (who were trained in the last summer) and their students in grades 4 and 8 were included in the interim test. Note that the baseline data was also collected from those same teachers and their students back in 2008.

Since the teachers did not have adequate time (only five months) to complete the whole syllabus and the interim test might have been included items on certain topics that were not taught in class, students' performance on the interim test was underestimated. Thus, the student assessment results should be considered as interim, and more focus should be given to the teacher classroom observation study results, which are assumed to be more robust. Moreover, since the interim test data included only those summer zone schools from which teacher were trained in Summer 2008, readers should also be cautious while generalizing the results at the district, province or at the national level.

A total of 124 summer zone schools were visited in the post-test data collection. Of the 124 schools, 35 schools (including 38 teachers) were in Bagh, 52 (including 55 teachers) in Muzaffarabad and 37 (including 39 teachers) in Mansehra (Table 1). Note that these 132 teachers were trained in June-August 2008 and their baseline classroom observation data were collected in April 2008.

Table 1: Summary of Teacher Classroom Observation and Interim Student Assessment Sample Data

Data	District	No. of Schools	Grade 4	Grade 8	Total
Teacher Observation	Bagh	35	19	19	38
	Muzaffarabad	52	35	20	55
	Mansehra	37	25	14	39
	Total	124	79	53	132
Student Assessment	Bagh	35	115	221	336
	Muzaffarabad	52	213	261	474
	Mansehra	37	188	242	430
	Total	124	516	724	1240

For the student assessment, a total of 1240 students were tested out of which, 336 students were in Bagh (115 in grade 4 and 221 in grade 8). In Muzaffarabad, 213 of the 474 students were in grade 4 and 261 in grade 8. In Mansehra, a total of 430 students in 37 schools were assessed, with 188 in grade 4 and 242 in grade 8 (see Table 1). The interim tests were conducted in three subject areas (English, mathematics and science) for grade 4 and 8 students in January-February 2009. Each test form was comprised of 35 items.

III. Results

Teacher Classroom Observations

Teacher classroom observation data were analyzed to learn what teachers are doing in the classroom with respect to teaching processes (content and pedagogy). A total of six cluster variables were created using both quantitative and qualitative analyses of the baseline data. A quantitative advanced statistical analysis (using factor analysis) was conducted followed by a qualitative analysis to form the clusters. The variables were labeled as (i) *Active Learning Teaching*, (ii) *Lesson Planning*, (iii) *Use of Presentation Technique*, (iv) *Content Knowledge*, (v) *Teacher-Student Relationship*, and (vi) *Positive Teaching Behavior*. Note that questions within each cluster variables were rated on a four point Likert type scale: 3 for *Excels*, 2 for *Satisfactory*, 1 for *Unsatisfactory*, and 0 for *No Evidence*.

- i. *Active Learning Teaching*: This cluster variable includes six questions that are related to (1) active learning teaching techniques, (2) involving students in classroom activities, and (3) encouraging students to ask questions, and (4) encouraging student interaction, (5) listening to student responses, and (6) using teaching aids. This cluster variable was rated in a scale of a minimum of 0 (i.e., *no evidence* in all six questions) to a maximum of 18 (i.e., *excels* in all six questions). The percent scale equivalent to 0-18 scale is; 0% represents *No Evidence* (0 on the 0-18 scale); 1%-33% represents *Unsatisfactory* (greater than 0 and up to 6 on the 0-18 scale); 34%-66% represents *Satisfactory* (greater than 6 and up to 12 on the 0-18 scale); and 67% -100% represents *Excels* (greater than 12 and up to 18 on the 0-18 scale).
- ii. *Lesson Planning*: This cluster variable includes four questions that are related to how the teacher (1) introduces the lesson clearly, (2) allocates time effectively, (3) delivers the

lesson logically and coherently, and (4) assesses student understanding. This cluster variable was rated in a scale of a minimum of 0 (i.e., *no evidence* in all four questions) to a maximum of 12 (i.e., *excels* in all four questions). Thus, on average, 0% would represent *no evidence*, 1%-33% *unsatisfactory*, 34%-66% *satisfactory*, and 67%-100% *excels*.

- iii. *Use of Presentation Techniques*: This cluster variable includes only one question that asked about how teachers use presentation techniques in the classroom. This was also rated using the same Likert scale mentioned above.
- iv. *Content Knowledge*: This cluster variable only includes only one question that asked about the teacher's command of the subject matter. This was also rated using the same Likert scale mentioned above.
- v. *Teacher-Student Relationship*: This cluster variable includes questions that are related to whether the teacher (1) makes effective seating arrangement, (2) addresses student by name, (3) does not call a student by a negative nickname, and (4) does not shout in class. As this variable comprises four questions (and each was rated 0-3 scale), it was rated in a scale with a minimum of 0 (when *no evidence* in all four questions) to a maximum of 12 (when *excels* in all four questions). Thus, on average, 0% would represent *no evidence*, 1%-33% *unsatisfactory*, 34%-66% *satisfactory*, and 67% -100% *excels*.
- vi. *Positive Teaching Behavior*: This cluster variable includes questions that are related to whether the teacher (1) makes eye contact with students, (2) connects lessons to students' experience, (3) moves around the class to help students, (4) praises student work, and (5) uses positive behavior management. This cluster variable was scored in a scale with a minimum of 0 (when *no evidence* in all five questions) to a maximum of 15 (when *excels* in all five questions). Thus, on average, 0% would represent *no evidence*, 1%-33% *unsatisfactory*, 34%-66% *satisfactory*, and 67% -100% *excels*.

In general grades 4 and 8 teachers in the baseline did not perform satisfactorily in *active learning teaching*, *lesson planning*, and *use of presentation techniques*. No teacher got an average score of 30% in the respective cluster variables; overall teachers were rated *unsatisfactory*. On the other hand, they (both grades 4 and 8 teachers) obtained over 60% score in *teacher-student relationship* and over 37% score in *positive teaching behavior* and thus were rated *satisfactory*. With regard to teacher's content knowledge, overall teachers in grades 4 (with 26% scores) and 8 (with 35% scores) were rated *unsatisfactory* and *satisfactory*, respectively (Table 2).

In the post-test, both grades 4 and 8 teachers in summer zone schools obtained statistically significantly higher scores than their scores in the baseline. In most cases, they rated either *satisfactorily* or *excels* in the post-test as opposed to *unsatisfactory* or *satisfactory* in the baseline, respectively (Table 2). A one-to-one comparison has been made among teachers in the summer zone schools in the baseline and post-test. Teachers in grade 4 achieved 36% score (i.e., *satisfactory*) in the post-test as compared to 24% (i.e., *unsatisfactory*) in the baseline in *Active Learning Teaching*, 48% (i.e., *satisfactory*) compared to 20% (i.e., *unsatisfactory*) in *Lesson Planning*, 62% (i.e., *satisfactory*) compared to 25% (i.e., *unsatisfactory*) in *Presentation Technique*, 55% (i.e., *satisfactory*) compared to 29% (i.e., *unsatisfactory*) in *Content Knowledge*,

71% (i.e., *Excels*) compared to 62% (i.e., *satisfactory*) in *Teacher Student Relationship*, and 52% (i.e., *satisfactory*) compared to 40% (i.e., *satisfactory*) in *Positive Teaching Behavior*. The same pattern of results was also observed for grade 8 teachers in the post-test (Table 2).

Table 2: Percentage of Score Obtained on Teacher Observation Indicators

Gr	Indicator	Baseline				Baseline (Summer)				Post-Test (Summer)			
		Total	Bagh	Muz	Mans	Total	Bagh	Muz	Mans	Total	Bagh	Muz	Mans
4	Active Learning Teaching	25%	25%	27%	22%	24%	23%	26%	23%	36%*▲	46%	38%	25%
4	Lesson Planning	20%	18%	26%	17%	20%	15%	26%	16%	48%▲	52%	47%	44%
4	Presentation Tech.	23%	18%	26%	24%	25%	15%	28%	25%	62%▲	66%	61%	60%
4	Content Knowledge	26%	20%	37%	20%	29%	15%	39%	22%	55%▲	58%	53%	58%
4	Teacher-Student Relationship	62%	65%	68%	52%	62%	66%	70%	52%	71%▲	74%	70%	71%
4	Positive Teaching Behavior	39%	39%	44%	33%	40%	39%	46%	32%	52%▲	53%	55%	47%
8	Active Learning Teaching	24%	22%	27%	24%	23%	21%	27%	22%	47%*▲	60%	45%	31%
8	Lesson Planning	23%	20%	27%	21%	23%	17%	27%	25%	59%▲	66%	56%	51%
8	Presentation Tech.	28%	20%	38%	27%	30%	20%	38%	32%	66%▲	67%	61%	70%
8	Content Knowledge	35%	30%	43%	31%	37%	27%	43%	44%	68%▲	76%	62%	64%
8	Teacher-Student Relationship	60%	64%	61%	54%	61%	63%	61%	58%	72%▲	74%	70%	70%
8	Positive Teaching Behavior	37%	36%	40%	34%	38%	37%	40%	36%	58%▲	62%	59%	50%

Note: 0% = No Evidence, 1%-33% = Unsatisfactory, 34%-66%= Satisfactory, 67%-100% = Excels; * denotes statistically significant difference at $p < 0.05$; ▲ represents improvement.

When the frequency of the teachers in each rating category in the baseline and post-test were compared, it is evident that teachers have made tremendous improvement in their classroom behavior (Table 3). Please note that the same teachers were observed both in the baseline and post-test and their performance was evaluated using the same rating scale, so any decline in the percentage in the lower rating categories would represent improvement. In grade 4, about 78% of the sample baseline teachers (in the summer zone schools only) were rated *unsatisfactory* (74%) and *no evidence* (4%) categories in *active learning teaching* whereas in the post-test only one-half of the 78% of teachers in the baseline were rated in those categories (7% in *no evidence* 32% *unsatisfactory*). The result was more interesting for the *content knowledge* cluster variable; about 50% of the grade 4 baseline teachers were rated *no evidence* (42%) and *unsatisfactory* (8%)

categories, no teachers in the post-test were in those categories. A similar pattern of results was also observed for grade 4 teachers in *presentation technique* (Table 3).

Table 3: Percentage of Teachers Rated in the Baseline and Post-test

Gr.	Indicator	Baseline (Summer Zone)				Post-test (Summer Zone)			
		NE	US	S	E	NE	US	S	E
4	Active Learning Teaching	4%	74%	22%		7%	32%	50%	11%
4	Lesson Planning	13%	65%	18%	4%		14%	70%	16%
4	Presentation Tech.	50%	8%	20%	22%			28%	72%
4	Content Knowledge	42%	8%	18%	32%			51%	49%
4	Teacher-Student Relationship		8%	33%	59%			27%	73%
4	Positive Teaching Behavior		40%	50%	10%		13%	61%	26%
8	Active Learning Teaching	2%	82%	16%		4%	19%	60%	17%
8	Lesson Planning	6%	62%	28%	4%	2%	2%	64%	32%
8	Presentation Tech.	40%	4%	28%	28%	2%		15%	83%
8	Content Knowledge	32%	4%	22%	42%	2%		23%	76%
8	Teacher-Student Relationship		6%	44%	50%		2%	21%	77%
8	Positive Teaching Behavior		38%	58%	4%	2%	4%	60%	34%

Note: NE – No Evidence, US – Unsatisfactory, S – Satisfactory, E – Excels.

Over 90% of grade 8 baseline sample teachers in the post-test were rated either *Satisfactory* or *Excels* in all six cluster variables, except for *Active Learning Teaching*. In the baseline, about 84% of the baseline sample teachers were rated either **No Evidence** (2%) or **Unsatisfactory** (82%) in *Active Learning Teaching*. In contrast, only 23% of them were rated either **No Evidence** (4%) or **Unsatisfactory** (19%) in the post-test (Table 3).

District Comparison: The classroom performance of grades 4 and 8 teachers varied substantially both in the baseline (with varying baseline estimates in Table 2) and post-test; it is difficult to make any inference about which district teachers--whether in Bagh, Muzaffarabad, or Mansehra--have improved significantly in teaching and learning process due to the project-supported teacher training, without bringing all three districts' teacher classroom performance (ratings) in the baseline on the six cluster variables at the same starting point. An analysis of covariance (ANCOVA) was utilized to make a district-wise comparison among the teachers (Table 4). In this statistical method, the teachers' baseline rating score was used as a covariate for the post-test. The covariates make the districts statistically equivalent on the baseline rating score so that the districts can be evaluated on an equal basis on the post-tests; it is similar to making sure that a race is fair by having two runners begin at the same starting line, and not in front or behind the other runner.

It was revealed from the ANCOVA that teachers in grade 4 (in all three districts) obtained an equivalent estimated score of 25% (i.e., *unsatisfactory*) on *Active Learning Teaching* in the baseline, which is considered to be the reference point for fair comparisons. In contrast, teachers in Bagh scored double (50%, *satisfactory*) in the post-test compared to their score in the baseline (25%, *unsatisfactory*); teachers in Muzaffarabad and Mansehra obtained scores of 39% (barely *satisfactory*) and 24% (*unsatisfactory*), respectively (Table 4). This is the only cluster variable (i.e., *Active Learning Teaching*) in which teachers in Mansehra did not show improvement. In the remaining five cluster variables teachers in all three districts have improved substantially;

they were all rated higher in the post-test compared to their baseline (e.g., *unsatisfactory* to *satisfactory* or *satisfactory* to *excels*). The highest growth was observed for teachers in Bagh, followed by Muzaffarabad and then Mansehra in all cluster variables, except for **Content Knowledge** and **Teacher-Student Relationship**. In these two cluster variables, teachers in Mansehra outperformed the teachers in Muzaffarabad.

Table 4: Teacher Classroom Behavior: District wise Comparison

Grade	Cluster Variable	Estimated Baseline Scores (summer zone)	Estimated Post-Test Score (Summer Zone)			
			Total	Bagh	Muz	Mans
4	Active Learning Teaching	25%	38%*	50%▲	39%▲	24%▼
4	Lesson Planning	21%	49%	55%▲	48%▲	44%▲
4	Presentation Tech.	24%	62%	66%▲	61%▲	60%▲
4	Content Knowledge	30%	56%	60%▲	53%▲	56%▲
4	Teacher-Student Relationship	65%	72%	73%▲	71%▲	72%▲
4	Positive Teaching Behavior	40%	53%	53%▲	55%▲	49%▲
4	Overall	34%	55%	60%▲	55%▲	51%▲
8	Active Learning Teaching	23%	46%*	59%▲	45%▲	33%▲
8	Lesson Planning	23%	58%*	65%▲	57%▲	52%▲
8	Presentation Tech.	31%	67%	68%▲	61%▲	70%▲
8	Content Knowledge	39%	67%	75%▲	61%▲	64%▲
8	Teacher-Student Relationship	61%	72%	74%▲	72%▲	72%▲
8	Positive Teaching Behavior	39%	57%	60%▲	60%▲	50%▲
8	Overall	36%	61%	67%▲	59%▲	57%▲

Note: 0% = No Evidence, 1%-33% = Unsatisfactory, 34%-66% = Satisfactory, 67%-100% = Excels; * denotes statistically significant difference at $p < 0.05$ among the districts; ▲ represents improvement and ▼ represents decline.

For the grade 8 post-test, teachers in three districts performed statistically significantly different in the **Active Learning Teaching** and **Lesson Planning** (Table 4). The teachers in Bagh, Muzaffarabad, and Mansehra obtained average scores of 59% (*satisfactory*), 45% (*satisfactory*), and 33% (*unsatisfactory*) in the post-test as compared to their equivalent baseline estimated score of 23% in the **Active Learning Teaching** cluster variable. In **Lesson Planning**, teachers in all three districts were rated *satisfactory* in the post-test as opposed to *unsatisfactory* in the baseline. For the remaining four cluster variables, although teachers in Bagh outperformed their counterparts in Muzaffarabad and Mansehra, the differences were not statistically significant; they were rated either *satisfactory* or *excels*. Overall, teachers in Bagh progressed highest among the three districts, followed by Muzaffarabad and Mansehra.

Gender Comparison: When the performance of teachers in the post-test was analyzed by gender, it was revealed (Table 5) that overall male teachers in grade 4 (male=57%, female=50%) and female teachers in grade 8 (male=61%, female=62%) performed relatively better than their respective counterparts, though female teachers in grade 4 scored higher than male teachers in the baseline (male=31%, female=37%). In the post-test, the difference between male and female teachers in grade 4 was particularly statistically significant in **Active Learning Teaching**

(male=41%, female=29%); for the remaining five cluster variables although males outperformed females, the differences were non-significant. When the teachers' performance in the post-test was compared with their baseline scores, it was quite noticeable that male teachers made higher progress than the females in all six cluster variables. In the baseline both male and female teachers were rated *unsatisfactory* in four cluster variables and *satisfactory* in the other two; whereas in the post-test they received ratings of either *satisfactory* or *excels* in all six cluster variables with only the exception of females in *Active Learning Teaching* in which they rated *unsatisfactory*.

Table 5: Teacher Observation Indicators by Gender

Gr.	Indicator	Baseline			Baseline (Summer zone)			Post-test (Summer zone)		
		Total	Female	Male	Total	Female	Male	Total	Female	Male
4	Active Learning Teaching	24%	27%	21%	24%	28%	21%	36%*▲	29%▲	41%▲
4	Lesson Planning	20%	21%	20%	20%	23%	18%	48%▲	44%▲	50%▲
4	Presentation Tech.	24%	26%	21%	25%	29%	21%	62%▲	57%▲	65%▲
4	Content Knowledge	26%	24%	27%	29%	32%	25%	55%▲	53%▲	57%▲
4	Teacher-Student Relationship	60%	60%	59%	62%	64%	61%	71%▲	71%▲	72%▲
4	Positive Teaching Behavior	38%	39%	36%	40%	43%	37%	52%▲	48%▲	55%▲
4	Overall	32%	33%	31%	33%	37%	31%	54%▲	50%▲	57%▲
8	Active Learning Teaching	24%	28%	21%	23%	28%	21%	47%▲	48%▲	46%▲
8	Lesson Planning	22%	21%	22%	23%	27%	21%	59%▲	60%▲	58%▲
8	Presentation Tech.	26%	29%	25%	30%	36%	27%	66%▲	67%▲	65%▲
8	Content Knowledge	33%	34%	33%	37%	40%	36%	68%▲	67%▲	68%▲
8	Teacher-Student Relationship	60%	63%	57%	61%	68%	58%	72%▲	73%▲	71%▲
8	Positive Teaching Behavior	36%	41%	33%	38%	44%	35%	58%▲	58%▲	57%▲
8	Overall	34%	36%	32%	35%	41%	33%	62%▲	62%▲	61%▲

Note: 0% = No Evidence, 1%-33% = Unsatisfactory, 34%-66%= Satisfactory, 67%-100% = Excels; * denotes statistically significant difference at $p < 0.05$; ▲ represents improvement.

In the grade 8 post-test, female teachers scored higher in five of the six cluster variables, with the exception of *Content Knowledge* (Table 5). However, none of the differences were statistically significant. When they were compared with their baseline scores, it was revealed that improvement of the male teachers was much higher than that of female teachers in all cluster variables; the differences in scores between male and female reduced substantially in the post-test ($62\% - 61\% = 1\%$) than it was in the baseline ($41\% - 33\% = 8\%$). Teachers were also rated higher in the post-test (mostly *satisfactory* and *excels*) than they were in the baseline (mostly *unsatisfactory*, a few *satisfactory*, and *excels*).

Student Assessment

As it was stated earlier that the teachers did not have adequate time (about 4 - 5 months as opposed to 8-9 months) to complete the whole syllabus due to the short school year in 2008-2009, students' performance on the interim test would have been underestimated. Moreover,

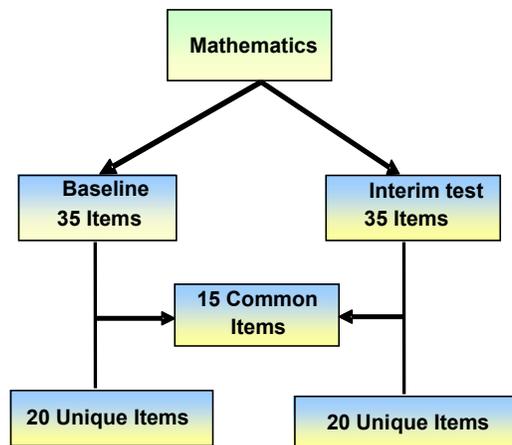
only a sample of summer zone schools was included in the interim test. Therefore, the student assessment results may be less robust with limited power. Before reporting the student assessment results, it is necessary to present the characteristics (psychometric quality) of the interim tests that may help in interpreting the results. They are described in the following.

Grades 4 and 8 English, Mathematics, and Science Interim Test: Test blueprints, which were created in 2007 and are based on the national curriculum, were used as a guide to ensure that the tests in both grades and all three subjects represented measurable objectives in the curriculum. The test blueprints, or test content matrices, will be maintained throughout the multi-year assessment period.

Test forms containing 35 multiple choice items each were created for all subjects: English, mathematics, and science. Items on these interim test forms were either pilot tested or field tested prior to this administration and had acceptable psychometric properties; item discrimination was considered as a criterion when selecting items for these interim tests.

From each baseline test form, a subset of 15 items was chosen to carry over from the 2008 baseline test to the 2009 interim test form. Psychometric experience has shown that this is an adequate number to provide the basis for statistically equating forms within each subject area and grade level. The equating items were selected so that each subset mirrors the baseline test in terms of content domain and difficulty. A sample baseline (2008) and interim test (2009) structure is presented in figure 2.

Figure 2: A Sample Baseline and Interim test (2009) Structure



Psychometric Quality: To examine the psychometric quality of the tests, both item level and test level quantitative analyses were conducted. Each item was evaluated with respect to its difficulty (or p-value) and discrimination (or point-biserial correlation) values. Each test was assessed based on the reliability coefficient of internal consistency (Cronbach, 1951)².

² Cronbach, L. J. (1951). Coefficient Alpha and the Internal Structure of Tests. *Psychometrika*, 16, 297–334.

Table 6 presents the average p-value³ of items both on the baseline and interim tests. Overall, the item p-values for both grades 4 and 8 tests were within acceptable and expected ranges (0.20 – 0.90). However, students in grade 4 found the English (baseline = 0.28, interim test = 0.32) and mathematics (baseline = 0.32, interim test = 0.35) in the interim test relatively easier as compared to the baseline, whereas they found science (baseline = 0.43, interim test = 0.41) relatively more difficult in the interim test. So, for each item on the grade 4 English test, on average about 28% students in the baseline and 32% of in the interim test got the item right. A similar pattern was also observed for grade 8 tests.

Table 6: Overall Test Difficulty Estimates by Subject Area

Grade	Subject Area	No. of Items	Baseline Test			Interim Test		
			P-value	Discr.	Rel	P-value	Discr.	Rel
4	English	35	0.28	0.21	0.40	0.32	0.21	0.44
4	Math	35	0.32	0.29	0.68	0.35	0.24	0.53
4	Science	35	0.43	0.33	0.76	0.41	0.30	0.72
8	English	35	0.35	0.32	0.75	0.35	0.26	0.67
8	Math	35	0.42	0.34	0.78	0.43	0.26	0.59
8	Science	35	0.44	0.30	0.70	0.41	0.23	0.48

Although the tests in the baseline and the interim test appear to be varied in difficulty (e.g., grade 4 English and Mathematics got easier and science got more difficult in the interim test), the differences in difficulty are adjusted when comparing student performance in the interim test as compared to their performance in the baseline. In other words, students’ scores both in the baseline and interim test are brought on to the same measurement scale so that any improvement or decline in their performance due to project-supported teacher training can be evident. The process of adjusting the test difficulty and bringing students’ scores on the same scale is called test equating. Through the equating procedure, psychometricians produce an answer to this question: if a student is taking the grade 4 interim test, what would have been his/her score on the baseline if he/she had taken the baseline test. In other words, we do not want to draw conclusions based on the interim test form being easier than the baseline test form. Students’ equated interim test scores (that are converted into the baseline) have been presented in this report.

As seen in Table 6, the discrimination⁴ values in the interim tests are consistently lower than they were in the baseline tests. This happened because of the restriction of range problem in correlation; note that the item discrimination is nothing but a simple Pearson correlation between item score (0 for a wrong and 1 for correct) and total test score. The restriction of range problem appeared due to the fact that only the summer zone schools as opposed to both summer and winter zone schools were covered in the interim tests (i.e., the sample was restricted to the

³ Item difficulty is defined as the average proportion of points achieved on an item by the students. It is calculated by obtaining the average score on an item and dividing by the maximum possible score for the item. In general, the greater the percentage of students who answer the item correctly, the easier the item is considered to be.

⁴ Item discrimination refers to the process of contrasting performance between higher- and lower-performing students on an item. An item is said to have higher discriminating power when higher-performing students do better on the item compared to lower-performing students.

summer zone schools only); as a result correlation values (item discrimination) get underestimated.

Although average item discrimination values for the interim test were relatively lower than their values in the baseline, they exceeded the accepted minimum of 0.20. The average discrimination values for the baseline and the interim tests ranged from 0.21 to 0.34 and 0.21 to 0.30, respectively. An average discrimination value on a test would be interpreted by saying that for each item on the English test, the higher-performing students (or those with higher total scores) had a 21 percent higher chance of answering the item correctly compared to lower-performing students (or those with lower total scores).

When the tests were evaluated with respect to their reliability coefficients of internal consistency⁵, it was revealed that the baseline and the interim tests had values of (0.40 to 0.78) and (0.44 to 0.72) respectively. Again, the reliability values for most interim tests (except for the grade 4 English) were much lower than they were in the baseline. This was due to the fact that the interim tests had on average lower discrimination values (Table 6). Please note that both item discrimination and test reliability are inter-related; a test with higher discriminating items will have a higher reliability coefficient than a test with fewer discriminating items. The discrimination values for the interim tests were lower due to the restriction of range problem.

Student Test Performance: Student performance was rated on two measurement scales: raw score⁶ and scaled score (ranging from 100 to 500). The scaled score is more robust than the raw score in determining the growth of student performance from one year to the next, as it captures differences in test difficulty in both years. Note that reporting student performance using scaled scores does not change the order of student position on the raw score scale. In addition, the results of the students were also reported by performance level categories.

⁵ The reliability of internal consistency is used to judge the consistency of results across items on the same test. Essentially, we are comparing test items that measure the same construct to determine the tests internal consistency.

⁶ Raw Score: Sum of correct responses to the items on the test.

Table 7: Overall Student Performance by District

Gr.	Subject Area	Baseline (Overall)				Baseline (Summer Zone Only)				Interim Test (Summer Zone Only)			
		Total	Bagh	Muz	Mans	Total	Bagh	Muz	Mans	Total	Bagh	Muz	Mans
4	English	9.9 *	10.3	10.2	9.5	9.6*	10.0	10.1	8.7	11.3*	13.0	11.6	9.8
		(268)	(273)	(272)	(264)	(265)	(269)	(271)	(255)	(282*)▲	(299)▲	(285)▲	(269)▲
4	Math	11.5*	11.6	11.0	11.7	10.9*	11.4	10.8	10.6	12.2*	14.1	11.8	11.4
		(274)	(275)	(271)	(275)	(269)	(273)	(269)	(264)	(279*)▲	(292)▲	(277)▲	(274)▲
4	Science	15.1	15.4	15.3	14.8	14.7*	15.4	15.3	13.4	15.1*	17.3	15.5	13.4
		(266)	(269)	(268)	(264)	(263)	(268)	(269)	(251)	(266*)▲	(286)▲	(270)▲	(251)
8	English	12.4*	13.3	14.3	10.9	12.7*	13.4	14.3	10.5	12.2*	13.0	13.0	10.7
		(254)	(264)	(273)	(238)	(258)	(265)	(273)	(234)	(253*)▼	(260)▼	(261)▼	(237)▲
8	Math	14.5*	15.9	15.2	13.3	14.9*	15.9	15.2	13.7	15.0*	15.8	14.5	14.7
		(267)	(276)	(272)	(259)	(270)	(276)	(272)	(262)	(271*)▲	(276)	(268)▼	(269)▲
8	Science	15.4*	15.5	16.1	14.9	15.5*	15.5	16.1	14.9	14.4	14.7	14.5	14.0
		(268)	(270)	(275)	(264)	(270)	(269)	(275)	(264)	(260)▼	(262)▼	(261)▼	(257)▼

Note: Numbers in parenthesis represents avg. scaled scores; * denotes statistically significant difference at $p < 0.05$; ▲ represents improvement and ▼ represents decline.

Total Raw Score Comparison: Student performance showed some variation in both baseline and interim tests. For the grade 4 baseline (summer and winter zone schools together), baseline (summer schools only), and the interim test (summer schools), the average raw scores for students were 9.9, 9.6, and 11.3 in English; 11.5, 10.9, and 12.2 in mathematics; and 15.1, 14.7, and 15.1 in science respectively out of a possible score of 35 (Table 7). Although the average raw scores in the interim tests were much higher in all three subject areas than they were in the baseline, it is important to note that the tests in the interim tests were also relatively easier for English and mathematics. So the improvement in the interim test over the baseline may be due to the project-supported teacher training or it could be because of the easier tests. The raw score comparison between the baseline and the interim tests therefore may not be very relevant; the scaled score comparison would be most relevant as they are brought on the same scale to assess the change due to the training. Their corresponding averaged scaled scores were estimated 268, 265, and 282 in English; 274, 269, and 279 in mathematics; and 266, 263, and 266 in science respectively (Table 7). It is evident from the scaled score comparison that students in grade 4 showed improvement in all three subjects due to the project-supported teacher training.

In contrast, performance of grade 8 students in the interim tests was not improved over their performance in the baseline. On average, students obtained total raw and scaled scores of 12.4 (254), 12.7 (258), and 12.2 (253) in the English subject area in the baseline for summer and winter zone schools together, the baseline for summer zone schools only, and the interim test for summer zone schools, respectively (Table 7). Their corresponding scores were 14.5 (267), 14.9 (270), 15.0 (271) in mathematics and 15.4 (268), 15.5 (270), and 14.4 (260) in science. There could be several factors which can be attributed to the no improvement situation. As was stated earlier, teachers in the summer zone schools had about five months to complete the syllabus

before the interim test assessments were administered. The length of time might not have been sufficient given the number of competencies in each subject-grade. Students might have been tested on certain competencies that might not have been taught in some schools before the interim tests were even administered.

Table 8: Student Performance: District-wise Comparison

Grade	Subject Area	Estimated Baseline Scores (summer zone)	Estimated Interim Test Scaled Scores (Summer Zone)			
			Total	Bagh	Muz	Mans
4	English	266.4	285.6	303.0*▲	283.6▲	270.4▲
4	Math	267.5	280.7	292.0*▲	279.1▲	271.1▲
4	Science	266.2	268.3	283.6*▲	268.6▲	252.9▼
8	English	259.7	252.4	258.5▼	254.9▼	244.0▼
8	Math	271.6	269.3	272.6▲	265.8▼	269.6▼
8	Science	271.3	259.2	262.7▼	256.6▼	258.2▼

Note: * denotes statistically significant difference among the districts at $p < 0.05$;

▲ represents improvement and ▼ represents decline.

District-wise Comparison: Student performance was also compared by district (Bagh, Muzaffarabad, and Mansehra). Table 8 shows the average raw and scaled scores on the baseline and interim test for each subject (English, mathematics, and science), district, and grade (4 and 8). The average scores are appeared to be varied both in the baseline and interim test. The differences among the districts for all subject areas in grades 4 and 8 were evaluated using an Analysis of Covariance (ANCOVA). In this statistical method, the baseline scaled score was used as a covariate for the interim test. The covariates make the districts statistically equivalent on the baseline test score so that the districts can be evaluated on an equal basis on the interim tests; it is similar to making sure that a race is fair by having two runners begin at the same starting line, and not in front or behind the other runner. For example, the scaled scores on the grade 4 English interim test were estimated for the districts (through the ANCOVA) after equalizing the baseline scores for the districts at 266.4; so, the difference among the districts (Bagh=303.0, Muzaffarabad=283.6, and Mansehra=270.4) on the interim test was noticeable after putting the districts at the same starting point on the baseline.

In contrast, none of the three districts (except Bagh for grade 8 mathematics) showed improvement over their baseline scaled scores for the grade 8 interim test; however, the improvement was statistically non-significant (Table 8).

Gender Comparison: Student performance was also compared by gender (Table 9). In the grade 4 baseline (both summer and winter zones together), male and female students performed better than their counterparts in mathematics (male=275, female=273) and science (male=263, female=269) respectively; they obtained exactly the same scores in English (268). When the analysis was done only for the baseline summer zone schools, it was revealed that male students received higher average scores than female students both in mathematics (male=271, female=267) and science (male=263, females=262) and females students received higher scores in English (male=264, female=266). In the interim test, male students outperformed females both

in English (male=283, female=281) and mathematics (male=283, female=275) and females outperformed males in science (male=265, female=267).

Table 9: Student Performance by Gender

Gr.	Subject Area	Baseline (Overall)			Baseline (Summer Zone)			Interim Test (Summer Zone)		
		Total	Female	Male	Total	Female	Male	Total	Female	Male
4	English	9.9	9.9	9.9	9.64	9.78	9.50	11.3	11.2	11.4
		(268)	(268)	(268)	(265)	(266)	(264)	(282)▲	(281)▲	(283)▲
4	Math	11.5	11.4	11.7	10.9*	10.6	11.1	12.2*	11.5	12.7
		(274)	(273)	(275)	(269)	(267)	(271)	(279*)▲	(275)▲	(283)▲
4	Science	15.1*	15.4	14.8	14.7	14.9	14.6	15.1	15.2	15.0
		(266)	(269)	(263)	(263)	(262)	(263)	(266)▲	(267)▲	(265)▲
8	English	12.4*	13	11.9	12.7*	13.8	12.0	12.2*	13.1	11.8
		(254)	(260)	(248)	(258)	(269)	(250)	(253)▼	(262)▼	(248)▼
8	Math	14.5*	14.1	14.9	14.90	14.8	15.0	15.0*	14.3	15.3
		(267)	(265)	(270)	(270)	(270)	(270)	(271*)▲	(267)▼	(273)▲
8	Science	15.4*	16.2	14.7	15.5*	16.4	14.9	14.4	14.8	14.2
		(268)	(276)	(262)	(270)	(278)	(264)	(260)▼	(263)▼	(258)▼

Note: Numbers in parenthesis represents avg. scaled scores; * denotes statistically significant difference at $p < 0.05$; ▲ represents improvement and ▼ represents decline.

A similar pattern of results was observed for students in the grade 8 baseline test (both summer and winter zone together); females outperformed males both in English (male=248, female=260) and science (male=262, female=276) and males outperformed females in mathematics (male=270, female=265). When baseline summer zone schools were only considered, female students performed better than males both in English and science, with no difference in mathematics. In contrast, in the interim test female students received higher average scaled scores than males both in English (male=248, female=262) and science (male=258, female=263) and males secured higher scores in mathematics (male=273, female=267) (Table 9). Both groups' performance declined (except for males in mathematics) in the interim test as compared to the baseline. As it was stated earlier, either teachers did not have adequate time to finish the syllabus or some competencies may have been tested that were not taught by the time the interim test was administered.

Performance Level Categories: Scores on the tests only provide information about how students performed on the test. They did not provide specific information about how much students at different score points know and are able to do. In order to gather that level of information, we classified students in the baseline into four performance level categories (i.e., *unsatisfactory*, *needs improvement*, *satisfactory*, and *advanced*) using a procedure called standard setting. This is similar to classifying students by letter grade (A, B, C, etc.), except that the categories are mapped out on a scale that does not change, and the different forms are equated. Another reason for doing standard setting is to keep track of student growth from one year to the next by

comparing the percentage of students in each category. A modified version of the Angoff Yes/No method (Plake, Ferdous, Buckendahl, & Impara, 2005)⁷ was used for standard setting.

Table 10: Student Performance Level Categories by Districts

Grade	Subject Area	Baseline (Overall)				Baseline (Summer Zone)				Interim Test (Summer Zone)			
		US	NI	S	A	US	NI	S	A	US	NI	S	A
4	English	8%	72%	20%	0%	10%	72%	18%	0%	7%▼	75%▲	18%	0%
4	Math	10%	70%	20%	0%	12%	72%	16%	0%	10%▼	75%▲	15%▼	0%
4	Science	6%	69%	24%	1%	7%	70%	22%	1%	9%▲	71%▲	19%▼	1%
4	Overall	8%	70%	21%	1%	10%	71%	19%	0%	9%▼	74%▲	17%▼	0%
8	English	10%	72%	16%	2%	9%	72%	16%	3%	10%▲	78%▲	12%▼	0%▼
8	Math	8%	72%	20%	0%	7%	71%	22%	0%	3%▼	81%▲	16%▼	0%
8	Science	5%	70%	24%	1%	4%	70%	25%	1%	6%▲	85%▲	9%▼	0%▼
8	Overall	8%	71%	20%	1%	7%	71%	21%	1%	6%▼	81%▲	12%▼	0%▼

Note: ▲ represents improvement and ▼ represents decline.

Table 10 above shows the percentages of student scores in each performance category both in the baseline and interim test by grade level and subject. In the grade 4 English baseline test (both summer and winter schools together), about 8% of sample students were classified as *unsatisfactory*, 72% *needs improvement*, 20% *satisfactory* and none *advanced*. The corresponding percentages for students in the summer zone schools only in the baseline were 10%, 72%, 18% and 0% respectively. In contrast, for the interim test about 7% of the students were classified into the *unsatisfactory*, 75% into the *needs improvement*, 18% into the *satisfactory*, and 0% into the *advanced* categories. In looking at the comparison between the baseline and interim test scores for students in the summer zone schools, we find that students in the *unsatisfactory* category has dropped down to 7% in the interim test from 10% in the baseline and increased to 75% in the *needs improvement* category from 72% in the baseline. Percentages for the *satisfactory* and *advanced* categories remained the same for both the baseline and interim test. One possible interpretation would be that about 3% students who were in the *unsatisfactory* category in the baseline progressed to the *needs improvement* category in the interim test.

For grade 8 mathematics, about 3% of the students were classified into the *unsatisfactory* category in the interim test as opposed to 7% in the baseline; 81% as compared to 71% into *needs improvement*; 16% as compared to 22% into *satisfactory*; and none into the *advanced* category (Table 10). This would indicate that about 4% of the students who were in the *unsatisfactory* category in the baseline must have moved up to the *needs improvement* category, but about 6% of the students who were in the *satisfactory* category must have moved down to the *needs improvement* category. The students moving up from one category to the next or moving down from one to the lower category are usually called borderline students and must have received test scores that are much closer to the lower or upper cut off scores. This pattern of

⁷ Plake, B. S., Ferdous, A. A. Buckendahl, C., & Impara J. (2005). Setting Multiple Performance Standards Using the Yes/No Method: An Alternative Item Mapping Method. Paper presented to the meeting of the National Council on Measurement in Education, Montreal, Canada.

results was also observed for most subject areas. Note that in an ideal situation for improvement, we would expect that the percentage of students (from the baseline to interim test) goes down for *unsatisfactory* and increases for *needs improvement*, *satisfactory*, and *advanced* categories.

IV. Conclusion

Student assessment and teacher observation interim test data were analyzed separately to report how students had performed on the interim tests as compared to their baselines. The comparisons were done both at the aggregated (overall between the baseline and interim test) and disaggregated levels (comparison by districts and gender). As the interim test includes only summer zone schools (because of the recent school year change in Pakistan), in order to evaluate the impacts of RISE teacher training on student learning outcomes and teacher classroom behavior, the baseline data were also reanalyzed separately for summer zone schools only, thus making one-to-one comparison between the baseline and the interim test among the summer zone schools.

Teacher Classroom Observation

Overall, teachers in both grades 4 and 8 performed substantially better in the interim test than in the baseline. In most cases, they rated either *satisfactorily* or *excels* in the interim test as opposed to *unsatisfactory* or *satisfactory* in the baseline, respectively. Teachers in grade 4 received a *satisfactory* rating in the interim test as compared to an *unsatisfactory* rating in the baseline in *Active Learning Teaching*, *Lesson Planning*, *Presentation Technique*, and *Content Knowledge*. In *Teacher Student Relationship*, they were rated *excels* and *satisfactory* in the interim test and baseline, respectively. They were also rated *satisfactory* in *Positive Teaching Behavior* in both the baseline and interim test. The same pattern of results was also observed for grade 8 teachers in the interim test. When the percentage of teachers (i.e., the same teacher observed both times) in each rating category in the baseline and interim test were compared, it was evident that teachers have made tremendous improvement in their classroom behavior (in all six cluster variables). Most of the teachers who were in the *no evidence* and *unsatisfactory* categories in the baseline had moved up to *satisfactory* category in the interim test. This pattern was observed both for grade 4 and 8 teachers.

The classroom performance of grades 4 and 8 teachers varied substantially both in the baseline (with varying baseline estimates) and the interim test; it is difficult to make any inference about the district in which teachers improved the most. The results showed that grade 4 teachers in Bagh, followed by Muzaffarabad and then Mansehra in all cluster variables, except for *content knowledge* and *teacher-student relationship*. In *content knowledge* and *teacher-student relationship*, teachers in Mansehra outperformed the teachers in Muzaffarabad. The similar pattern was also observed for grade 8.

When the performance of teachers in the interim test was analyzed by gender, it was revealed that overall male teachers in grade 4 and female teachers in grade 8 performed relatively better than their respective counterparts, though female teachers in grade 4 scored higher than male teachers in the baseline. In the baseline both grade 4 male and females teachers were rated *unsatisfactory* in four cluster variables and *satisfactory* in the other two; whereas in the interim test they received ratings of either *satisfactory* or *excels* in all six cluster variables with the only

exception for females in *active learning teaching* in which they rated *unsatisfactory*. In contrast, grade 8 female teachers in the interim test scored higher in five of the six cluster variables, except in *content knowledge*. However, none of the differences were statistically significant.

Student Assessment

Students in grade 4 have shown some improvement, though they had only 4-5 months of school year at the time of interim post-test because of the change in school year in Pakistan, compared to a regular school year (8-9 months) needed to acquire all the expected grade 4 knowledge, skills, and abilities. Students in grade 4 revealed highest improvement from the baseline to the interim test in English followed by mathematics and then science. This finding was also supported by teachers' classroom performance in the post-test as compared to the baseline. Overall, teachers in the post-test obtained higher scores in all six cluster variables (i.e., teacher classroom behavior).

When the student assessment results for grade 4 were compared by district, the students in Bagh made the highest improvement (in all three subjects) in the interim test as compared to the baseline, followed by Muzaffarabad and Mansehra. The results were also supported by teacher observation results; teachers in Bagh outperformed teachers in Muzaffarabad and Mansehra in most cluster variables. Student performance was also compared by gender. It was revealed that both male and females students in grade 4 obtained higher scores in the interim tests than they obtained in the baseline. However, male students outperformed females in English and mathematics and females outperformed males in science in the interim tests.

In contrast, students in grade 8 did not perform well on the interim test. Students' scores in the interim test declined in English and science and showed about no improvement in mathematics. It could be due to number of factors: (1) in general, the grade 8 syllabi are much longer than the grade 4 ones so teachers did not have adequate time to complete the syllabus due to the short school year in 2008-09 (i.e., recent change in school year in Pakistan), (2) the interim test might have had a few items that tested knowledge, skills, and abilities (KSAs) that might not have been taught yet by the teachers in their classes. However, the difference in the scores between the baseline and the interim test are not too far apart. Please note that students' low performance on the interim test might be due to the second factor mentioned above.

With regard to the district-wise comparison, grade 8 students in Bagh district performed better than students in Muzaffarabad and Mansehra in all three subjects in the interim test, though the differences were not statistically significant. Note that students' performance in all three districts declined as compared to their statistically equivalent baseline scores, except for mathematics in which students in Bagh received about the same scores both in the baseline and interim test. In a gender-wise comparison, although female students received higher average scaled scores than male students both in English and science and male students secured higher scores in mathematics, both groups' performance declined (except for male students in mathematics) in the interim test as compared to the baseline.

It is to be noted that the student assessment interim test study has its own limitations, particularly with regard to lack of adequate classroom instruction time (short school year due to the change in school year). Therefore, it is recommended that the findings of the interim test student

assessment should be considered as interim. The teacher classroom observation findings, though, have shown an overall success of RISE teacher training for both grades 4 and 8. The next upcoming activity for the student assessment and teacher observation study is full-phased post-tests in November 2009 (winter zone schools) and January – February, 2010 (summer zone schools). The upcoming post-tests will include both summer and winter zone schools and the teachers will have the full school year for classroom instruction to complete the syllabi. These post-tests will provide a more accurate evaluation of the actual project impact on teacher behavior and student learning outcomes.

Annex B

Teacher Absenteeism



Revitalizing, Innovating, Strengthening Education (RISE)

A PROJECT SPONSORED BY THE
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)-PAKISTAN,
COOPERATIVE AGREEMENT NO. 391-A-00-06-01080-00
POST-EARTHQUAKE EDUCATION RECOVERY PROGRAM



Teacher Absenteeism Study Results of the May 2009 Observation

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Executive Summary

The *Revitalizing, Innovating, Strengthening Education (RISE)* project, funded by USAID, operates in four earthquake-affected districts of northern Pakistan: Bagh, Muzaffarabad and Poonch districts of Azad, Jammu & Kashmir (AJ&K) and Mansehra district of the North West Frontier Province (NWFP). RISE is a comprehensive, integrated program with the goal to strengthen the educational system in the four project districts. Teacher attendance is one of RISE's two key indicators of success for the project.

In 2007, RISE began a sample-based, longitudinal study on a biannual basis in Bagh and Mansehra districts to track RISE's progress in meeting this target. This document reports the results of the May 2009 data collection on teacher absenteeism in 422 schools in both districts. In the third week of May 2009, School Management Committees (SMCs) and Parent-Teacher Councils (PTCs) recorded the attendance of 2,176 teachers for a total of six working days.

Results of the May 2009 follow up show improvement in teacher attendance in both districts, as compared to the baseline results in 2007. Overall, teacher attendance was greater than 85 percent. In Mansehra, teacher absenteeism decreased to 1 in 8 teachers (2009) as compared to 1 in 4 teachers (2007). Similarly, in Bagh, teacher absenteeism decreased to 1 in 7 teachers from 1 in 5 teachers.

Two key factors are associated with teacher absenteeism: the distance of teachers' residence from the schools and the sex of the teacher. While there was an overall reduction in absenteeism of both male and female non-local teachers, absenteeism is found to be consistently higher among non-local teachers than local teachers in both districts. Similarly, the rates of absenteeism of both male and female teachers declined while the disparity between male and female rates of absenteeism persisted. Male teachers were found to be present in schools at relatively higher rates than women. When the male and female teacher absenteeism data was disaggregated by distance from the school, the disparity between rates of absenteeism among male and female local teachers was only three percent. The disparity between male and female non-local teachers' rates of attendance was quite high, at 16 percent in Mansehra and 11 percent in Bagh.

RISE compared the rates of absenteeism of teachers by zone; training status; and day of the week. No difference was found in absenteeism between summer and winter zone schools in Bagh; Mansehra showed a slightly higher rate of absenteeism in winter zone schools. When the rates of absenteeism among teachers trained by RISE and those who did not participate in RISE trainings were compared, teacher attendance was found to be two percent higher among the teachers trained by RISE in both districts. This difference will be explored further in an upcoming report. No consistent pattern was found in absenteeism when the teachers' rates of absence were reported by day of the week.

Introduction

The *Revitalizing, Innovating, Strengthening Education (RISE)* project, funded by USAID, operates in four earthquake-affected districts of northern Pakistan: Bagh, Muzaffarabad and Poonch districts of Azad, Jammu & Kashmir (AJ&K) and Mansehra district of the North West Frontier Province (NWFP). RISE is a comprehensive, integrated program with the goal to strengthen the educational system in the four project districts. RISE's core interventions are capacity building of education managers; professional development of 10,000 primary, middle, and high school teachers; and training and support of 2,300 school management committees (AJ&K) and parent-teacher councils (Mansehra).

RISE's three core interventions are intended to contribute to an increase in the rate of teacher attendance. In 2007, RISE began a sample-based, longitudinal study on a biannual basis to assess frequencies and patterns in teacher absenteeism in two target districts: Bagh and Mansehra. This document reports the results of the fifth data collection for the study on teacher absenteeism.

Data Collection

Data were collected from 422 schools: 171 schools in Bagh and 251 schools in Mansehra. Table 1 below presents detailed information on the number of schools in the sample. In 2008, RISE used SMCs/PTCs as data collectors. In May 2009, RISE used SMCs /PTCs again as data collectors as well as the data collection tools and methods that were introduced in 2008. SMC/PTC members documented teachers' attendance and absence in the sample schools for the entire work week in the third week of May 2009.

Table 1: Number of Schools Visited in the Teacher Absenteeism Study

District	Primary			Middle			High			Grand Total
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Bagh	52	40	92	20	23	43	18	18	36	171
Mansehra	145	42	187	25	17	42	15	7	22	251
Total	197	82	279	45	40	85	33	25	58	422

SMCs/PTCs recorded the attendance of 2,176 teachers (1,076 in Bagh and 1,100 in Mansehra). The details are shown in Table 2 below:

Table 2: Number of Teachers Observed

District	Male	Female	Total
Bagh	580	496	1,076
Mansehra	763	337	1,100
Total	1,343	833	2,176

Prior to data collection, RISE trained field staff as trainers of SMCs/PTCs in the use of the data collection tools. RISE district staff received a day-long training on the use of the data collection tools and the verification mechanism. After the training, RISE district staff oriented the

SMC/PTC members on data collection processes at their respective schools. During the SMC/PTC orientations, RISE staff trained SMC/PTC members on strategies to ensure reliability and validity of the data that they collect.

A data verification mechanism was used to check the accuracy and reliability of the data collection process by SMCs/PTCs. To verify the data collected by PTCs/SMCs, RISE staff independently recorded the teachers' attendance from the selected schools on at least two working days per school during the data collection week. The staff collected data from 131 schools: 52 schools in Bagh and 79 schools in Mansehra. RISE staff recorded the attendance of 464 and 358 teachers in Mansehra and Bagh districts respectively. Teacher attendance data collected by RISE staff were compared with the data collected by SMCs/PTCs using the Statistical Package for Social Sciences (SPSS). In Bagh, 91 percent of the attendance recorded by SMCs/PTCs matched the verification records; and in Mansehra, 93 percent of the teachers' attendance records matched.

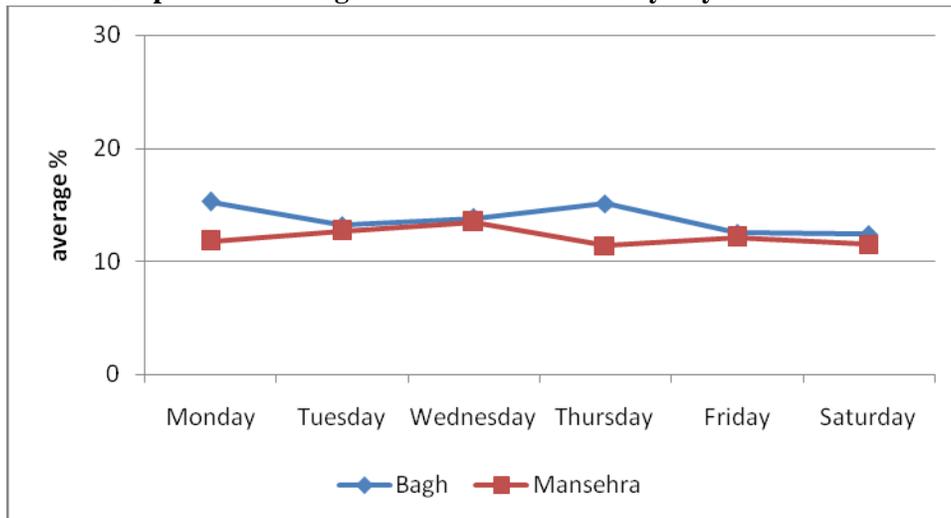
In May 2009, RISE introduced the use of brief personal interview questions to gain a better understanding of the head teachers' perspectives on factors related to teacher absenteeism. In the interviews, RISE elicited the perspectives of the head teachers on factors related to teachers' attendance in their schools. RISE staff interviewed the head teachers of the schools where verification data were collected. Interviews with the head teachers were conducted in 124 schools (53 in Bagh and 71 in Mansehra).

Findings

On average, the percentage of teachers' who were absent on any given day of the data collection week was lower than 15% (see Graph 1). A considerable decrease in teacher absenteeism is noted in Mansehra; absenteeism decreased from 25% in the 2007 baseline to 12% in 2009. Similar findings are observed in Bagh, where absenteeism decreased from 20% in the baseline to 14% in 2009. The following paragraphs of this section of the document present disaggregated data on teacher absenteeism by day of the week; distance of the teachers' residence from the school; sex of the teacher; distance between teachers residence to school and sex of teachers; zone; and participation in RISE's professional development activities.

Attendance rates by day of the week. The results of the May 2009 follow up show that teacher absenteeism is slightly higher on Monday and Thursday in Bagh whereas in Mansehra absenteeism is consistent throughout the week. See Graph 1 for more detailed information.

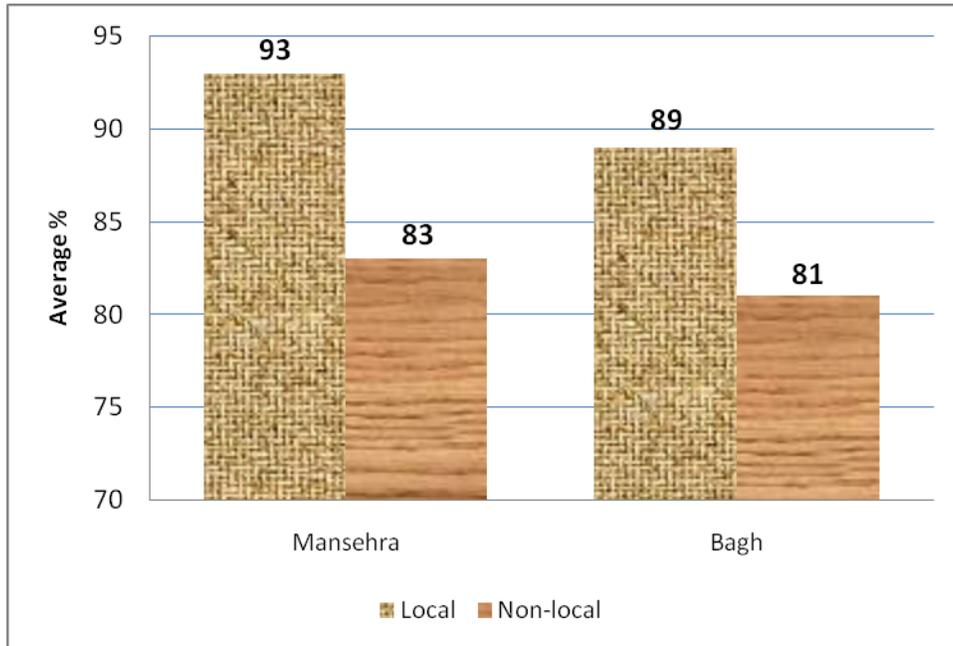
Graph 1: Percentage of Teachers Absence by day of the week



Attendance rates by distance of the teachers' residence from the school. In the study RISE differentiated between local and non-local teachers in the recording of teacher absenteeism. For the study, a local teacher is defined as a teacher who is from the same village or living in the vicinity of the school, and a non-local teacher is someone whose primary residence is located outside the vicinity of the school. In the 2007 baseline, RISE found that non-local teachers had higher rates of absenteeism than local teachers.

A comparison between the attendance of local and non-local teachers' attendance on the observation days in 2009 shows that distance of teachers' residence to the schools continues to play a role in teacher absenteeism. Although non-local teachers' rates of attendance increased overall from the baseline to 2009, local teachers continued to be present in comparatively higher numbers in both districts. In May 2009, on average 89% of the local teachers and 81% of the non-local teachers were found present in the sample schools in Bagh on the observation days. The November 2008 results for Bagh showed 83% for local teachers and 77% for non-local teachers. In Mansehra, the attendance rate of local teachers was 93%, and the attendance rate of non-local teachers was 83%. The November 2008 results for Mansehra showed 88% for local teachers and 81% for non-local teachers. The comparison between the percentages of local and non-local teachers who were present on the observation days is shown in Graph 2.

Graph 2: Comparison of Local and Non-local Teachers' Attendance



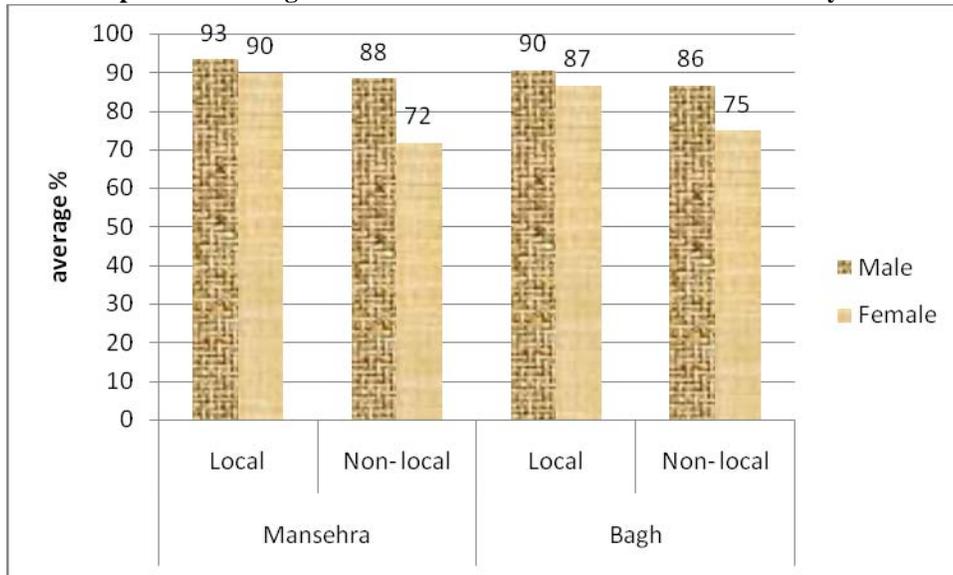
Attendance rates by sex of teacher. The May 2009 results show that there is a considerable improvement in teacher attendance among both male and females as compared to the 2008 results. However, the results from the May 2009 follow up show that a higher percentage of female teachers were absent on the observation days in both districts. This result is consistent with previous findings. A comparison between male and female teacher absenteeism is shown in Graph 3. In Mansehra, on average, 23% of the female teachers, as compared to 10% of the male teachers, were absent on the observation days in May 2009. The November 2008 results showed 25% of the female teachers were absent and 14% of the men. In Bagh, the 2009 results show that 17% of the female teachers were absent as compared to 11% of the male teachers. November 2008 results showed 22% among female teachers and 16% for men.

Graph 3: Comparison of Male and Female Teacher Absenteeism



Absenteeism by distance and sex. The 2009 results show that both distance from the teachers' residence to school and sex of the teacher influence attendance rates. When distance from the residence to school is taken into consideration in a comparison between rates of attendance of male and female teachers, the disparity between male and female attendance widens with the increased distance. There is only a three percent disparity between the attendance rates of the local male and female teachers. In comparison, the disparity between attendance rates of the non-local male and female teachers is quite high, at 16% for Mansehra and 11% for Bagh. These findings show that distance from the teachers' residence to school has a considerable affect on female teachers' attendance.

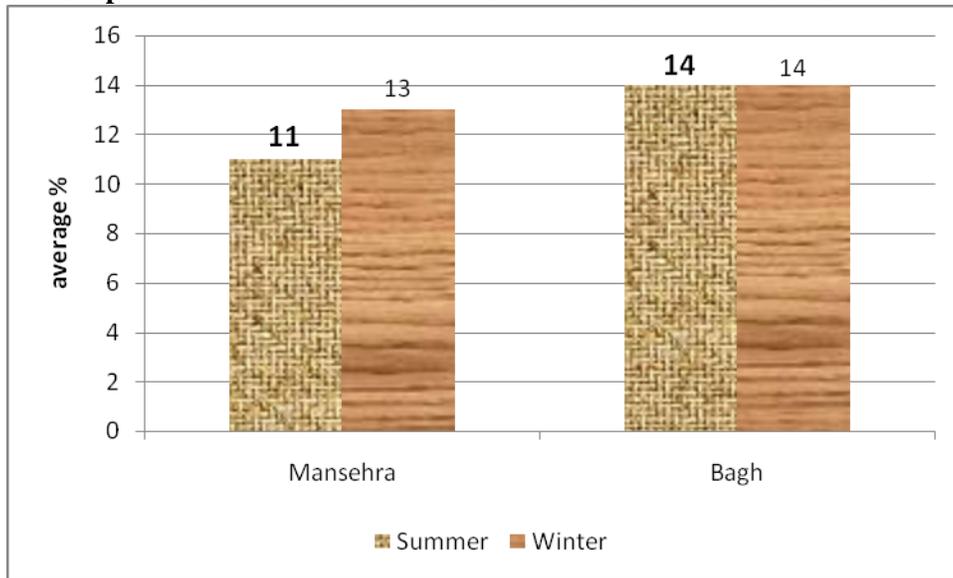
Graph 4: Percentage of Attendance of Local/ Non-local Teachers by Sex.



Absenteeism by geographic zone. Graph 5 shows a comparison between the percentage of teachers absent on the observation days in winter and summer zone schools in 2009. There is a little difference between the absenteeism rates of winter and summer zone school teachers. In Mansehra there is only a two percent difference between the rates whereas in Bagh there is essentially no difference in the rates of attendance.

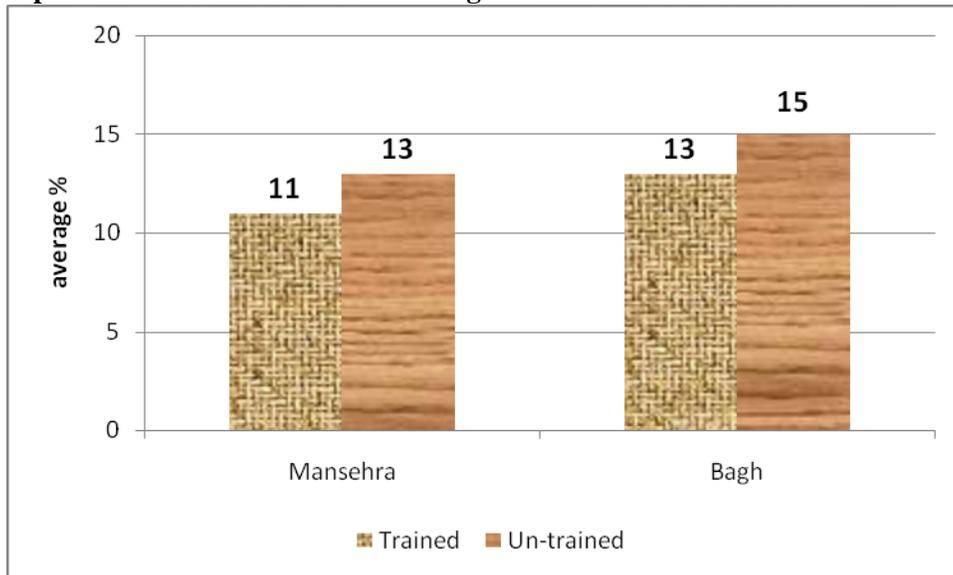
Results for the November 2008 follow up were significantly different in Bagh. There is a 7% difference between the 2008 and 2009 rates of teacher absenteeism in summer zone schools. Absenteeism among teachers in Bagh summer zone schools was 21% in November 2008 and 14% in 2009 whereas the 2008 and 2009 rate of absenteeism in Bagh's winter zone schools was 14%. This high absenteeism rate in 2008 in Bagh's summer zone schools most likely can be attributed to poor weather conditions at the time of the observation; a great number of the sample schools do not have shelters. In Mansehra, teacher absenteeism in May 2009 is slightly higher in winter zone schools as compared to summer zone schools.

Graph 5: Teacher Absenteeism in Summer and Winter Zone Schools



Absenteeism by training status. Graph 6 shows a comparison between absenteeism rates of teachers trained by RISE and those were not trained by RISE. A comparatively lower percentage of RISE-trained teachers were absent than teachers not trained by RISE on the observation days. In both districts, the difference in absenteeism between teachers trained by RISE and those who were not is 2 percent.

Graph 6: Teachers Absenteeism Among RISE Trained and Un-trained Teachers



Head teachers' perspectives on factors related to teacher absenteeism. RISE staff conducted brief personal interviews with head teachers as part of the data verification process. In the

interviews, RISE staff asked head teachers about their perspectives on the influence of SMCs/PTCs and RISE teacher training on teachers' absenteeism. The interviews also included questions concerning the frequency of visits by education managers to the schools and the kind of support that they provided during these visits.

Education managers, as part of their overall job responsibilities, engage in school supervision and instructional support; school visits is one mechanism to ensure the accountability of teachers to their schools. In the interviews, 72% of the head teachers in Bagh and 82% of head teachers in Mansehra reported visits by the education managers during the last year. In Bagh, 20% of the head teachers mentioned that they received academic support from the education officials while 18% of schools in Mansehra received this form of support. Head teachers did not report influence of teacher training on teacher absenteeism in their schools.

RISE works with SMCs and PTCs to strengthen their skills in school improvement and advocate for better education for their children. Head teachers in Bagh and Mansehra reported that these groups play a vital role in improving teacher attendance in their schools. In Bagh, 68% of the head teachers stated that SMCs have played a positive role in increasing teacher attendance while in Mansehra 75% of the head teachers mentioned the contributions of PTCs. The monitoring and support roles played by SMCs and PTCs were the contributions most often cited by head teachers.

Conclusion

Overall teacher attendance improved in the sample schools. In both districts, the percentage of teachers at school on the days of observation was 85% percent. May 2009 results show an overall significant decrease in teacher absenteeism, as compared to the 2007 baseline results in both districts. In Mansehra, the percentage of teachers absent on the observation days decreased from 25% in the 2007 baseline to 12% in 2009. In Bagh, the percentage of teachers absent on the days observed for the study decreased from 20% in the baseline to 14% in 2007.

In RISE's baseline and follow up, two key factors were identified to be associated with teacher absenteeism: the distance of teachers' residence from the schools and the sex of the teacher. While there was an overall reduction in absenteeism of both male and female non-local teachers, absenteeism is found to be consistently higher among non-local teachers than local teachers in both districts. Similarly, the rates of absenteeism of both male and female teachers declined. However, the disparity between male and female rates of absenteeism persisted. Male teachers were found to be present in schools at relatively higher rates than women. When the male and female teacher absenteeism data was disaggregated by distance from the school, the disparity between rates of absenteeism among male and female local teachers was only three percent. The disparity between male and female non-local teachers' rates of attendance was quite high, at 16 percent in Mansehra and 11 percent in Bagh.

RISE compared the rates of absenteeism of teachers by zone; training status; and day of the week. No difference was found in absenteeism between summer and winter zone schools in Bagh; Mansehra showed a slightly higher rate of absenteeism in winter zone schools. When the

rates of absenteeism among teachers trained by RISE and those who did not participate in RISE trainings were compared, teacher attendance was found to be two percent higher among the teachers trained by RISE in both districts. This difference will be explored further in an upcoming report. No consistent pattern was found in absenteeism when the teachers' rates of absence were reported by day of the week.