

CHAPTER XIV: KEY CONCLUSIONS AND RECOMMENDATIONS

A number of the studies done by us, mainly the study on the determinants of student performance in SLC and the case study of effective and ineffective schools, have demonstrated convincingly that continued poor performance of Nepali children in the SLC examinations is not due to inadequate teaching and poor learning ability of children alone. Evidently, school performance is closely associated with the structural aspects of the Nepalese economy and society such as extreme poverty; lack of basic services; illiteracy; unequal distribution of resources across the different development and ecological regions; monolithic language policy; and age-old discrimination against women, ethnic, and linguistic minorities. Our studies have also demonstrated that poor student performance is the function of the weak academic foundations of students; poor assessment and promotion practices; poor teacher management; lack of teacher and school accountability; weak institutional leadership; obsolete and heavily contents-driven curriculum; serious shortage of well-qualified teachers, especially in Mathematics, English and Science; lack of even the most basic physical and instructional facilities needed to run schools; untimely and inadequate supply of textbooks; huge class size; near absence of monitoring and supervision; limited opportunity to learn (OTL) in classrooms for girls, ethnic, and linguistic minorities; the inability of students to understand the language of instruction; absence of educational environment in schools; lack of remedial teaching; inadequate study habits of students, and a host of other factors. These studies have also produced sufficient evidence to conclude that at least some failure and/or poor performance of children results from a number of examination-related factors, such as heavy biases in test items, use of non-standardized test papers, poor administration of examinations, unfair and unscientific marking practices, etc. For these reasons, in considering the improvement of student performance in SLC, it should be recognized that the Government should adopt strategies that are directed towards (a) addressing the structural causes of under-performance; (b) improving conditions in schools essential for improved student performance; and (c) changing examination practices. Only a multi-pronged strategy can address the chronic problem of poor student performance. It should also be recognized that the complexity of the problem calls for both immediate and long-term actions. In a similar fashion, reform should take place both on the policy and operational levels. Given the fact that under-achievement of children results from a number of structural problems outside the education sector, actions of the Ministry of Education and Sports (MOES) alone are not enough in the war against poor school performance. With all these considerations, we have made an attempt to provide a set of recommendations in this chapter.

Before we submit our recommendations, it should be pointed out that there seems to be a growing disenchantment lately not only with the SLC examinations but also with the entire public schooling system as a result of continued poor performance of children. A new viewpoint seems to be emerging gradually against the SLC examinations. Although this view has not been expressed in an organized way, many people both within and outside the education sector do not seem to be in favor of giving continuity to the SLC examinations. Many feel that the examination system has done disservice to the education system rather than served it. We observed this view throughout our nationwide process of consultation. The same view persists throughout the educational policy literature. In the main, there are two contradictory views concerning the public examinations: some in favor and others against. Advocates of terminal

examinations say that examinations motivate students to work harder and hold teachers accountable for performance. Critics, however, contend that tests lead to higher dropout rates, place too much weight on a single imperfect measure, and do nothing to ensure that students have an opportunity to learn the material being tested.

The study team feels very strongly that there is no substitute for SLC or any other form of terminal examination at the end of a level of education. We are not in favor of abolishing SLC at this stage. While we have noted a number of deficiencies and problems in the SLC examinations, we could notice some positive elements. Throughout the world, students are being tested more than ever before. This is being done in the hope that only a competitive system of education can contribute to national development. While countries with a decentralized system of assessment and examinations are shifting towards a national, centralized system of public examinations, a fairly strong, highly institutionalized public examination system is in place in the country. The SLC provides both a yardstick for measuring student performance and an instrument for holding schools and teachers accountable for higher performance. It encourages schools to do better, forces teachers to cover course contents, ensures alignment between instruction and curriculum, motivates students to learn more, creates competitive environment between and/or among schools, helps to ensure that all schools teach and maintain the same standards, provides a means for measuring the impact of school reform initiatives, selects students for further education, and provides a basis for certification. In a nutshell, the SLC can potentially be used as a driver of improving the quality of education. In a heterogeneous society, where educational conditions and standards are not uniform across the regions, an external examination plays a major role in ensuring comparability among schools. A national system of public examination becomes essential in a country with a decentralized system of education and in a situation where education is being provided by multiple providers. While we maintain the position that the SLC should continue to exist and function, we also believe that its features and elements should not remain static or permanent. It requires continuous attention and refinement to fit the shifting dynamics of the society. In many ways, Nepal is locked into a model of examination that was suitable in its early stage of educational development, but which no longer can cater to the needs of educational reform. Therefore, serious reforms are necessary. More than that, we should also stress that implementing reform measures calls for ideological commitment at all levels.

The conclusions and recommendations are grouped into nine broad areas.

1. DEVELOPING INSTITUTIONAL CAPACITY OF OCE

Create a Secondary Education Board (SEB) by merging OCE and HSEB with mandate to conduct Grade 12 examinations. The institutional analysis of OCE has shown a number of deficiencies: severe resource constraints, lack of expertise in testing and measurement, very limited or no capacity for undertaking research and development works, lack of autonomy, heavy work pressure, inadequate communication with the institutions within and outside the education sector, etc. OCE is good at logistics management. However, it does not have the tenets of a professional testing institution. It seriously lacks expertise and professional capacity in test development and test analysis and reporting. It also lacks institutional and financial autonomy required enable it to function as a professional testing institution. It generates enormous amount of resources, but it must perform its functions under severe financial constraints. It is highly unlikely that OCE will ever be able to function as a professionally

competent institution should it continue to function as a Government entity. Hence, it is essential to develop OCE into a semi-autonomous Secondary Education Board (SEB). This new institution should have the mandate, authority, standing, and competence to manage and deliver terminal public examinations at the secondary level. Grade 12 will eventually be the terminal Grade of school education as envisaged in the Tenth Plan. Therefore, the newly created SEB should have the mandate to conduct Grade 12 examinations. The establishment of the new institution will take place following the merger of HSEB (without the curriculum component) and OCE. This restructuring will call for amendment in the current HSEB Act of 2046 and promulgation of a new act. The organogram and other details of the proposed institutional restructuring are provided in the Institutional Analysis Chapter of this report. As SEB becomes autonomous and fully institutionalized, it should establish its own institutional infrastructure at the regional and district levels. It will not, however, diminish the roles that the Regional Education Directorates and District Education Offices are playing. Their role(s) would be essential in monitoring and administering the terminal examinations.

Transfer authority to conduct Grade 10 examinations to regional authorities. Although the Government intends to make Grade 12 the terminal Grade of school level education, for several years to come many students will choose not to go for higher education after Grade 10. Grade 12 could be officially terminal, but for several students Grade 10 will continue to be the terminal Grade. Those who choose to join the world of work or do something else after Grade 10 will require certification of their formal education. Therefore, Grade 10 examinations should be conducted through five regional authorities which will operate within and report to the Secondary Education Board. It will mean that they will not function as separate independent examination boards. Even after the transfer of authority to conduct Grade 10 examinations to regional authorities, SEB will continue to set question papers in the core subjects for reason of uniformity. As regards other subjects, the concerned regional authorities will set questions. Regardless of the Board, students throughout the country will be issued a national certificate from SEB upon completion of their Grade 10. The workload of SEB will be reduced substantially if regional authorities share the burden of conducting Grade 10 examinations. SEB needs to focus on aspects related to research and development.

Develop national expertise in testing, assessment, and examinations. Our data suggest that national expertise on testing, assessment, and examinations is limited. Assessment and testing go beyond question setting and moderation of test papers. MOES officials are generalists in the field of education. These officials are nationally transferable which makes it difficult to develop and sustain the level of professional expertise required. Those who work in testing institutions within the country are largely unfamiliar with the modern theories, principles, and methods of testing and assessment. Courses in FOE on measurement and assessment are also obsolete. Testing and measurement is a highly developed discipline within education. Most FOE professors have little exposure to the new practices of testing. There has been very little or no use of whatever limited capacity that exists within the FOE. Therefore, two actions are suggested. First, MOES should use whatever national expertise exists within the country to develop a national system of assessment and testing. In the long run, existing knowledge within MOES and FOE will not be enough to build the national capacity in testing, assessment, and examinations. Therefore, external assistance should be mobilized to develop national expertise in the field.

Increase OCE Access to Financial Resources. Our financial analysis revealed serious financial constraints within the OCE. As a Government entity, OCE receives regular budget from the

Government. OCE raises some 116 million rupees annually in fees from students. These funds generated by the OCE go into the Government's treasury. Our study shows that the funds OCE receives annually are not enough to meet examination-related costs. These allocations are barely enough to meet the costs required to conduct examinations, let alone carrying out training, research, and development functions. The testing personnel engaged in different tasks such as test construction, moderation, marking of answerbooks, etc. are underpaid. The regional, district, and school authorities who take much of the burden of conducting SLC examinations say that they receive inadequate funding from the OCE. The study has also noted inefficiencies and irregularities in its financial management. There were instances where students didn't even have drinking water during the examinations. The consequences of funding shortage are severe. Examiners are not serious in their work if they are not sufficiently paid. It is difficult to find good examiners because the scale of remuneration is too low. The quality of public examinations cannot be improved without increasing the access of OCE to financial resources. Feasibility analysis shows that there is sufficient prospect for developing OCE as an independent and financially self-supporting institution. The semi-autonomous status proposed earlier will enable SEB to retain all the funds generated from examination-related fees. The study team makes the following suggestions for increasing OCE's resource base:

Until OCE is transformed into a new institution, a Development Fund can be established in OCE in accordance with the provisions of the Office Operation Fund Act of 2043 and the Regulations of 2050. Creating such a Fund would increase the access of OCE to more resources. The notion of Development Fund allows OCE to raise funds and retain some portion of its incomes for its own utilization, while still getting annual budgetary allocation from the Government. This option requires initiation by OCE, convincing MOES and the Ministry of Finance, and then obtaining final approval of the Cabinet. This option may increase some access to resources, but it does not ensure financial autonomy.

There are enormous possibilities for increasing revenue from the sale of examination-related products and services, possibilities not yet tapped properly. So long as OCE remains a Government entity, no new possibilities will be looked into.

The second option for achieving institutional and financial autonomy is to gain a semi-autonomous status. It should be noted that institutional autonomy and financial autonomy go together. Therefore, OCE will gain full access to financial resources only if it obtains a semi-autonomous status. Professionalism and innovation cannot thrive in a bureaucratic setting. Therefore, the establishment of an autonomous institution should be the final goal. This recommendation is consistent with our institutional restructuring proposal.

Strengthen the Research Capacity. Test development requires continuous research. The OCE's research function should be enhanced and extended to keep it up to date on assessment and marking approaches, concepts, and trends etc. When tests are improperly used for high stakes decisions, they can reinforce racial/ethnic inequalities instead of reducing them. Educational policymakers need to constantly monitor the negative consequences of public examinations.

2. MAKING ADJUSTMENTS IN THE EXISTING SECONDARY CURRICULUM

Limit test papers in SLC on Grade 10 curriculum materials only. The SLC examinations are meant for testing the learning achievement of children. Historically, SLC examinations were

limited to Grade 10 syllabus. Question papers were set from the texts taught in Grade 10. In recent years, however, SLC examines students' understanding of Grades 9 and 10 curriculum materials. The rationale for combined testing of Grades 9 and 10 materials has been that the SLC, as a level-end terminal examination, should test the students' cumulative understanding of subjects taught at the secondary level (Grades 9 and 10). The scope and coverage of the tests, therefore, depend on the intent. It is essentially a political rather than a pedagogical decision. There is no particular pedagogical position as to what should be tested through a level-end public examination such as the SLC. But, many would agree that if the intent is to test students' acquisition of general competencies or abilities, then the tests should be designed to measure students' overall understanding of the materials taught at a particular level (say Grades 9 and 10). But, if the intent is to measure students' learning achievement or mastery of the subject matter, then the tests should be designed to measure the materials taught in the last Grade of a level of education (Grades 10). When students' mastery of the subject matter or learning achievement is tested through cumulative approach, it can add extra burden on the part of students, leading to poor student performance. When contents taught over a period of the several years are taught, it raises the problem of recall and memorization. Most teachers and students interviewed as a part of school survey were firm in their view that SLC should only be confined to the testing of materials taught in Grades 10. Analysis of answerbooks also revealed that students have particular problems with the questions directly drawn from Grade 9 materials. The Study Team, therefore, recommends that the curriculum policy that requires the testing of both Grades 9 and 10 materials should be changed immediately and that SLC test papers should be based on the materials taught in Grades 10 only. This is already being practiced in several countries including Pakistan and India and is being considered in Bangladesh and Sri Lanka.

Limit the number of subjects to be tested in SLC. Students are tested in too many subjects. Currently, the number of subjects is eight. The greater the number of subjects, the greater the burden on the part of schools, teachers, parents, and above all – the students. It also adds burden on the OCE that must manage the testing of large number of students. In Bhutan, India, Pakistan, and Sri Lanka, the number of subjects the students must pass is 6, 5, 7, and 6 respectively. Most other countries in the world that have centralized examination systems test students in core subjects like languages, mathematics, and science. The parents, teachers, and students interviewed as a part of our survey were firm in their opinion that the number of subjects to pass SLC could be reduced to six compulsory subjects only. What is important is whether the student has acquired the ability to learn throughout his or her life, not the number of subjects the student has passed. Therefore, the study team recommends that the number of subjects required to pass SLC be limited to the five core subjects only: Nepali, English, Social Studies, Science, and Mathematics. Schools should, however, continue to teach the eight subjects as prescribed in the curriculum. But, in terms of passing SLC, the requirement should be limited to five subjects only. There are at least two strong reasons for limiting the number of subjects to be examined for purpose of certification. First, the performance of students in the five core subjects listed above determine their chances of success in higher education and employment. This will allow students to gain greater mastery in these core subjects. Second, this will substantially reduce the burden of work on OCE, allowing it more time to concentrate on key professional functions such as development of standardized test items, analysis of test analysis, research on examination-related issues, and feedback to the different components of the system.

Explore the possibility of testing and certification in additional subjects. There will be students desiring to be tested and certified in other non-core and/or optional subjects to satisfy their

further academic pursuits. In such cases, provision can be made to examine and certify students in more than six subjects. In a number of other subjects like computer science, physical education, music, and creative arts, the possibility of examinations by professional bodies outside the Government sector should be explored.

Develop basic courses in Mathematics and Science. The contents analysis of curriculum materials reveal that Mathematics and Science curricula are heavily content-loaded. Our experts who analyzed the curriculum materials believe that these two curricula are relevant to those who pursue studies in the related fields after completion of SLC. Results of the tracer study show that less than 10% of the total students who pass SLC study subjects requiring heavy contents of Science and Mathematics. It should be mentioned that most schools in Nepal do not have the basic physical, human, and instructional resources that are necessary to implement these two curricula. Much failure in SLC is due to the poor performance of students in these two subjects. Therefore, it is recommended that Basic Science and Basic Mathematics curricula be developed by removing certain portions of the existing curricula that are directly relevant to those who pursue further studies in these subjects. CDC should immediately appoint a committee consisting of relevant experts, teachers, teacher educators, and testing officials to revisit the existing Science and Mathematics curricula and propose suitable contents for Basic Mathematics and Basic Science. This should not be interpreted as the lowering of standards. It is to be noted that the CBSE in India has recently made a decision to remove several lessons from the Science and Mathematics textbooks after a thorough analysis of student performance and school conditions.

Teach Nepali as a second language in early Grades. A close analysis of answerbooks has shown us that language proficiency is closely associated with student performance. Those speaking Nepali as a mother tongue or those who are proficient in Nepali give better performance compared to others. Proficiency in Nepali language is found to determine students' overall performance in SLC and performance in other subjects of the curriculum. Since SLC uses essay-type items, students require strong proficiency in Nepali or English – two mediums allowed in SLC. The extent of expression difficulty was severe among non-Nepali speaking population. Even after 10 years of schooling in Nepali most linguistic and ethnic minorities do have difficulties with the language. It could be that the way Nepali textbooks are written and the way Nepali is taught in classrooms do not help students acquire language arts or skills. The emphasis on the literary aspect of the Nepali language both in curriculum materials and teaching may pose difficulty among the non-Nepali speaking population. Therefore, we recommend that Nepali be taught as a second language in early grades where Nepali is not spoken by a large number of student population.

Streamline the number of subjects included in school curriculum. In recent years, there has been a significant expansion of the curriculum both in terms of the number of subjects and the amount of contents prescribed in each subject. Often, curriculum expansion has taken place without actually assessing the impact on schools, teachers, and learners. New subjects are added ultimately, adding burden on the students. CDC should lead a process to streamline the number of subjects offered in school curriculum.

3. IMPROVING TEACHING-LEARNING CONDITIONS IN SCHOOLS

Strengthen the role of the head teacher in school management. The findings of our case studies of effective and ineffective schools have shown consistently that the head teacher is the key factor influencing school effectiveness, measured in terms of pass rates in SLC. Effective schools are found to have stable and firm leadership as opposed to ineffective schools where leadership is found to be weak or unstable. The head teachers in effective schools are characterized as being 'bold,' 'decisive,' 'under control,' 'task or goal-oriented,' 'fully committed,' 'always prepared to make a difference,' and 'committed.' These traits are largely missing among the head teachers in ineffective schools. The heads in schools are able to support, monitor, and supervise the instructional staff. Given the crucial role of leadership, it is to be recommended that actions must be taken to strengthen the role of the head teacher in school management. First, the selection of head teachers, which currently takes the form of nomination based on political or other non-transparent considerations, should be replaced by a system where the heads are selected through a competitive and transparent system. Second, amendment is necessary in the criteria and procedure specified in the Education Regulations that give high value to service years, formal qualifications, and training in the recruitment of head teachers, rather than demonstrated ability to manage and lead school. Third, the Educational Regulation gives the DEO unlimited power in the appointment and dismissal of the head teacher. There should be a larger role of the primary stakeholders rather than the DEO. Fourth, the head teacher should be given all essential authority and responsibility to lead and manage school, including the authority to select teachers, remove or take disciplinary action against non-performing teachers, and take all executive decisions. Fifth, the head should initially be appointed for a term of 4 years, with possible extension based on the evaluation of his or her work by all stakeholders. Sixth, the SMC, PTA, and the DEO should review the performance of the head teacher annually. If the annual reviews suggest that the condition of school has not improved, then these bodies should have the authority to remove the head teacher prior to the full term of four years. Seventh, the amount of allowance paid to the head teacher (a sum of Rs. 500) does not attract highly qualified and competent people. Therefore, it should be reviewed. Finally, present head teacher training courses are not enough both in terms of contents and duration to develop head teachers' capacity to manage and lead the school. School management is a specialized profession. It is too simplistic to assume that anyone with a bachelor degree in education and a few years of teaching can manage a school effectively. Therefore, a team of experts should be appointed to revisit the existing provision of training and propose necessary revisions.

Introduce a suitable homework policy. The extent to which students are asked to do homework has a positive association with school performance implying that the higher the amount of homework, the greater the achievement in SLC. Our survey shows that only 46% of the total students are exposed to homework in their schools, and this percentage is much lower for public school students. Our case studies reveal that homework is a regular feature in secondary schools with effective performance, while homework is a rare event in ineffective schools. Our study has also revealed that students in private schools have a better higher opportunity for doing homework than their counterparts in public schools. This could possibly be one of the several reasons why private school students show better performance compared with the public school students. Homework has several learning benefits. It increases students' time-on-task, gives students sufficient practice, keeps students focused on learning, increases interaction between

students and teachers, creates pressure on the part of students to learn the material taught, and offers an opportunity to the students to receive feedback and remedial support. Because there is little or no homework in public schools, students are deprived of opportunities that are likely to enhance their performance. We should also note that in private schools the student exposure to homework may exceed the desired level. Both over exposure to homework or no homework at all should be addressed properly by a national policy on homework. This policy should delineate the amount of homework each student is entitled to. It should be made mandatory to the public school teachers who do not see assigning homework as a part of instruction.

Introduce school-based examinations. There is ample amount of international research evidence suggesting that frequent monitoring of student learning through a variety of school-based examinations can add to increased student performance. Frequent testing of students is found to determine student performance significantly. Likewise, findings of our study of effective and ineffective schools also confirm that when students' work is continuously assessed and monitored, their chance of achieving higher marks in SLC increases. Frequent testing is a regular feature of most private schools, while students in public schools are under-tested or not tested at all. Even if they are tested, these test results are rarely used to further motivate them or give them pressure to learn more. Historically, attempts to introduce internal assessment and/or formative assessment have failed in Nepal for different reasons. Teachers fear that internal assessment will increase their workload. In fact, the weight of external examinations causes additional stress and workload. We therefore recommend making a mandatory provision for frequent testing of students in public schools. It will require amendments in the current Education Regulations. Assessment policy should move from the existing provision of assessment of learning to assessment for learning, which focuses more strongly on the needs of the learner than the needs of the system. Public schools should immediately seek departure from the assessment of learning view to that of assessment for learning

Build reading habits on the part of students. One significant finding of our study is that students with proper and regular reading habits have higher chances of achieving success in school education. One other interesting finding is that the number of books available at home also has a positive association with student performance. That means that the higher the exposure of students to different types of reading materials, the greater the school performance. The success of a school lies in its ability to develop study habits on the part of students rather than the amount of information it can pass on to them. Most public schools are found to lack reading materials other than the prescribed textbooks, which often do not arrive in time in schools. The concept of school library is virtually non-existent. Students are rarely exposed to different kinds of supplementary resources in schools. In view of the above findings, two actions are recommended. First, the Government should make a plan to set up a school library in each secondary school of Nepal. The availability of textbooks and other supplementary readers is poor in schools. Therefore, school libraries should be set up in rural schools with top priority and gradually extended to cover the entire school system in a phased manner. Second, the way both Nepali and English subjects are taught, they do not help develop reading habits on the part of students. It will be appropriate to give more emphasis to reading in Nepali and English teaching along with other language skills. Both pre-service and in-service training courses should re-emphasize the value of reading skills. In many countries, reading is taught as a separate subject.

Review the distribution of secondary schools. Our survey data tend to suggest that students in large secondary schools, measured in terms of student population, have a better chance of

achieving success in SLC in comparison to students who attend small secondary schools. Our study found a strong association between school size and learning achievement. Case study research also confirms the above finding. Most ineffective schools happen to be the so-called proposed schools with a few students. Over the years, the Government has permitted many primary or lower secondary schools to run secondary Grades without ensuring adequate physical infrastructure and the availability of qualified and committed teachers. These schools do not receive any support from the Government, although most recently, the Government has decided to provide some support to them. In recent years, due to the growing popularity of private schools, many public schools have lost their students, leading to a sharp decline in their size. Schools are often upgraded without due consideration of potential enrollment, community features, and the availability of public and private schools in the vicinity. Since having a secondary school is a symbol of community prosperity, communities work hard to establish a secondary school. Increased enrollment at the primary level also has increased the demand for more secondary schools. As a result of all these developments, the current pattern of schooling provision is somewhat inefficient, leading to too thinly populated secondary schools without adequate resources and conditions for learning. In such a context, it will be essential to review and assess the distribution of schools. Although it might be less desirable in political terms, from the view point of pedagogical and economic reasons, it is desirable to initiate a process of school merger and/or consolidation where inefficient or non-viable schools are closed down in favor of options that are more efficient and cost effective. As we are very close to achieving UPE, the demand for more secondary schools can be expected to rise. The opening of new secondary schools or upgrading of primary or lower secondary schools should not be left to popular community demands alone. As the system expands further, we need to make choices about the new location and consolidation of the existing inefficient and non-viable schools. At least three actions can be suggested in that context.

First, in the more densely populated areas, such as the Tarai and urban areas, the possibility of school merger should be explored to bring schools up to an optimum level in relation to their enrollment.

Second, in the mountains and remote districts where the population is characterized by very thin distribution and seasonal migration, the possibility of residential schools should be explored.

Third, the current practice of automatic upgrading of primary or lower secondary schools into secondary schools must be replaced by a system of school establishment based on proper mapping.

Align teacher professional development with assessments and examinations. Recurrent teacher training has been adopted as a major strategy for enhancing the quality of student achievement. It is assumed that increased opportunity for professional development through recurrent training would lead to improved teacher professionalism, dedication, and motivation, which will positively contribute to student learning. Obviously, this assumption does not hold. The study shows negative an association between short-term training, and student performance. This is certainly not a good news for many of us – planners, educators, and donors – who always have had a faith in the ability of teacher training to promote student learning. Several factors may explain the negative impact of teacher training on student performance. First, teacher training courses in Nepal, whether pre-service or in-service, intend to promote the so-called child-centered, participatory, and interactive teaching methods, which are not properly aligned with the public examinations that measure the amount of the contents knowledge of students. Second, too many teacher training courses involving hundreds of thousands of teachers have

disrupted teaching in schools seriously removing teachers from classrooms. Third, there is no perfect match between teacher's training and their assignment in schools. Often, we noted hundreds of instances of English teachers participating in the Social Studies training and the Mathematics teachers attending Nepali training. Fourth, the incidence of teachers attending training courses is high in ineffective schools where student learning does not get a very high priority. There could be many more factors causing a negative relationship between training and student performance. It will not be wise to advise the Government to suspend short-term training courses based on the finding of this study alone. However, the Government should definitely reevaluate the overall recurrent teacher training provision currently underway under EFA 2004-2009, SESP, and TEP. Perhaps teacher management is more important than teacher development that is not properly linked to curriculum, learners' needs, and teachers' overall professional development needs. Private schools are often found doing a much better job in terms of teacher management than the public systems that give a high priority to teacher development rather than management.

Make efficient use of teachers. Interestingly, teacher load is found to be a statistically significant variable. The larger the teaching load, the higher the performance of students. It is not immediately clear why increased workload may have contributed to student performance. However, careful analysis may suggest that teachers who are utilized to the optimal level produce better results than those who are not utilized or partially utilized. The pattern of teacher distribution has not been very efficient, with a surplus in some schools and shortage in others. Past efforts to redistribute teachers have not yielded fruitful results. Therefore, it is important to ensure that teachers are equitably distributed across the different regions, districts, and schools and that the teachers available in schools are utilized to the fullest.

Increase allocations in secondary education. Consistent with many school effectiveness studies carried out in developing countries, our study also found a strong association between spending per student and school performance, implying that schools with high per-child expenditure do a better job in terms of their students achieving success in SLC than other types of schools. Per-student spending in Nepal is not uniform across different types of schools. There are serious gaps between public schools and private schools, the latter spending 11 times higher than the former. Our case studies also showed large gaps in per-pupil expenditure between effective schools and ineffective schools, the former spending more money per child. Likewise, per-child spending varies in terms of school location (rural versus urban) and financing type (Government-financed versus community-financed). Unlike primary education, the Government has not assured full funding for secondary education. The policy of the Government, as stated in the Seventh Amendment of the Education Act and the Tenth Plan, has remained to finance secondary education based on cost sharing with local communities and parents. Apparently, some schools operate under desperate poverty and lack even the most basic facilities, especially in areas where communities and parents are too poor to raise funds. Often, inequitable distribution of Government resources coupled with low resource base of local communities makes some schools poorer than others. In this context, equalizing resources among the poor and affluent schools should, therefore, be one key element of school financing policy. It is advisable to increase the funding level for secondary education. However, it should be noted that the overall increase in the funding level can only bring unequal outcomes unless these funds are equitably distributed and targeted to the most needy areas and families. The most recent decision of the Government to provide free education up to secondary level is a right step towards ensuring equity. Where Government allocations alone will not be adequate to finance secondary education, therefore, concrete steps need to be taken to increase parental and/or local

contribution. In particular, well-off communities and families might be willing to pay for their children's education, provided they are assured that schools do provide education of good quality. For this, schools should be permitted to raise funds locally.

Ensure sufficient remediation for struggling students. Our observations of hundreds of schools and classes reveal that there is a serious lack of sufficient remediation for struggling students. In public schools, as reported earlier, there is very little testing. Even if testing is done, test results are rarely used to support learning. Thus, weak students rarely get support from their teachers. And, this practice of negligence of weak students starts at the primary level, and runs through the secondary stage.

Ensure that public schools are adequately monitored and supervised. Both our school survey and case study of effective and ineffective schools show that there is hardly any teaching learning in many rural secondary schools. It is not just about the lack of physical, instructional, and human resources. Even when resources were available, there was no teaching learning. Courses were not completed in time. Teacher absenteeism was high. Even if teachers were present in schools, teachers did not teach. It seemed that there was no one to take responsibility for children's education. Students did not receive time and attention from their teachers. In some schools, we also observed hard-working teachers, often with inadequate formal qualifications. These teachers were struggling to make a difference, but they were not receiving the professional support and supervision they need to be able to perform effectively. It should be recorded that we observed total absence of monitoring and supervision in schools. The MOES employs an army of school supervisors, resource persons, and trainers. Unfortunately, public schools have not been supervised at all. Government supervision and monitoring is essential in communities where local community members and parents are not in a position to monitor teacher and/or school performance, especially in the poor communities. These happen to be schools where strong leadership is not in place. The near collapse of the supervision and monitoring system is thus one major problem the public schools are currently facing. This is no longer the case in private schools where principals or head teachers provide close supervision and monitoring to school staff. As the supervision and monitoring system falls apart, other systems begin to fall apart. The Government should assess the monitoring and assessment system in its entirety. As a part of the survey, we noted schools and teachers being monitored by SMC members, PTA members, and parents in schools transferred to local communities. The transfer initiative appears to have some potential to bring schools back into the business of teaching and learning.

Take actions to minimize the negative consequences or backwash effects of SLC. The SLC has remained the almost exclusive goal for parents, students, teachers, and schools alike. There goes a mad race to achieve high pass rates in SLC in schools, especially schools operating in the private sector. Since student enrollment in private schools depends on student performance, these schools must work hard to appease their customers – the parents. When very high stakes are involved in the examination, it fails to do its job. Under the pressure of SLC, schools spend too much valuable curriculum time in directly preparing for, and conducting external examinations. Examination overload threatens to turn education from an intellectual and spiritual adventure into a treadmill. Public examinations, if not designed and monitored properly, can cause 'narrowing of the curriculum' and associated neglect of what is not examined. Often, schools and children devote a large portion of their time on test preparation activities. Case studies of private schools reveal that much of what happens in these schools during the last two Grades of schooling is 'teaching to the test.' Students are subjected to too many internal tests. Often, internal tests assume too much importance and they become the

master of the entire school learning, not servant. Schools do not engage their students in co-curricular and extra-curricula activities. Activities related to arts, literature, creative work receive less attention. Thus, the SLC has a damaging effect on the quality of education. This needs to be further explored. And, these backwash effects must be mitigated through reduced emphasis on external examinations, continuous monitoring and follow-up of teaching, use of improved test papers, and increased value for creative and original work, etc. The domination of examination has never been challenged, and it has driven the education system more comprehensively than ever. Educational planners must have a clear knowledge of the downstream effects of examinations.

Review the academic and professional profile of Science, Mathematics, and English Teachers. Much failure in SLC is due to the difficulty the students face in passing Science, Mathematics, and English. This has gone far too long, and Government has not taken any serious action to correct this situation. Teacher's qualification is the key to student performance. Little is known about the academic and professional profile of teachers who teach these subjects. A nationwide drive must be launched to gather information on the academic and professional characteristics of these teachers. And, their profile needs to be reviewed.

Re-introduce National Development Service (NDS) to meet the immediate shortage of qualified male and female teachers in the rural and remote districts. During the 1970s, Nepal launched a very successful educational strategy as a part of the National Education System Plan (NESP) under which university students were required to participate in a one-year mandatory National Development Service (NDS). The primary task of the students was to teach in a secondary school during their one year of stay in the remote and rural villages. Besides from the teaching, they initiated a number of community development initiatives mobilizing local resources. Students were paid a small sum of money just enough for their survival. Students' work was evaluated and they were assigned Grades based on their quality of work in schools and villages. The program gave students an opportunity to gain first-hand knowledge of rural Nepal and problems facing people in different parts of the country. It was an excellent example of higher education being useful to the poor people. The program was suspended for political reasons. Our discussions with the university students during our study revealed that there is plenty of enthusiasm and willingness on their part to join such schemes. The study team recommends that the Government must consider re-introducing the National Development Service (NDS) as a way of meeting the shortage of qualified teachers in subjects like English, Science, and Mathematics.

Introduce the open education system to provide increased access to and improve the quality of secondary education. Under the existing regulations, students can appear as a private candidate in the SLC examinations. The number of such students is very small compared to those who appear as regular candidates (4,231 versus 216,303 in 2005). But, the number of private students appears to be on the rise in recent years. For instance, in 2001 only 722 students sat for SLC as private candidates, which increased to 4,231 in 2005. The pass rate for these students is alarmingly low (20%). This compares unfavorably as compared with the pass rate for the regular students (38%). We do not have much information about the privately appearing students. Available evidence, however, suggests these are students (a) displaced by ongoing conflict, (b) removed by schools for failing the send-up examinations, and (c) those who cannot attend full-time secondary schools for a number of reasons. Those who take SLC privately are largely unsupported. While the number of displaced families and children continues to grow, the number of such students is certain to rise in future. The costs of private tutoring are so high that

many of them will find these costs unaffordable. Therefore, we recommend that the Government should introduce the open education system to provide secondary education to those who cannot benefit from the formal provision of schooling. Many displaced students who cannot return to their schools but would like to prepare for SLC would benefit from such a program. Most of all, many working children who must combine work and education due to poverty and a host of other reasons would be better served through the open education system. The market is full of SLC preparation materials published through commercial publishers. But, these materials do not serve the students who must 'teach' themselves. They can be served with carefully and professionally prepared self-study materials and radio and/or television-based lessons. Such materials and lessons would also be useful to the thousands of other students in the rural and remote areas where the quality of teaching is very poor.

Prepare for post-conflict reconstruction of the education system. Armed conflict has resulted in massive levels of destruction in the country: physical, institutional, human, moral, and cultural. It has devastated the social, economic, and political life of Nepal, including education. Schools located in conflict-affected districts appear to be disconnected from the larger national system of education. Teaching-learning in schools has largely remained dysfunctional. A number of critical educational activities such as distribution of educational materials including textbooks, teacher training, teaching supervision and monitoring of teachers, construction of new classrooms, holding SLC examinations, etc. have been seriously disrupted. A large number of families and children have been displaced. Fear of armed violence, abduction, rape or being caught in crossfire has often prompted families to move to safer locations, affecting schooling of children adversely. There has been loss of instructional hours due to frequent call of national and local strikes. Younger children, especially girls, are less likely to be regular in schools in high-risk environments. In some cases, there are reports of teachers fleeing their villages resulting in long periods of disruption in teaching and learning. Teachers operate under a immense pressure. They are forced to pay donations. There are reports that teachers are often tortured, humiliated, and killed. This has certainly lowered teacher morale. Often Government authorities and security forces put teachers under suspicion because they are historically opposed to the establishment. On the other hand, teachers' affiliation to political parties is sometimes not acceptable to the Maoists. A number of school buildings, DEO buildings, and other educational facilities have been damaged costing millions of dollars. The proposal to convert schools into 'zones of peace' has not been honored by either side. A secure and stable environment is needed for physical, cognitive and emotional development of children. Armed conflict affects all aspects of child development – physical, mental, and emotional. Children throughout the nation are living in a state of fear and uncertainty. Those who witness terrible atrocities are traumatized. The physical, sexual, and emotional violence to which they are exposed can shatter their world. As a result, children suffer from development delays, learning difficulties, and serious depression. While the nation must find political solutions to the ongoing conflict, a pro-active educational response is also needed to address the current educational crisis as well as reconstruct the education system that has already considerable damage.

MOES must review all aspects and elements of the education system – education policy, curriculum, medium of instruction, teacher training, examinations, textbooks, financing, role of the private sector, pattern of resource distribution, teacher management, etc. to ensure that education does not create or aggravate the conflict, whether intentionally or unintentionally.

In times of conflict and emergencies, educational policy should recognize and promote the role of teachers. School curricula, materials, equipment, supplies, and buildings may not be available,

but if well-motivated, committed, and qualified teachers are present, education can be provided. Therefore, the Government must work continuously to keep the morale of teachers high.

Educational personnel and teachers must be fully equipped with the knowledge and skills required to function in difficult circumstances. Educational personnel are not sufficiently prepared to conflict resolution, crisis prevention, and peace building issues. They would benefit from training courses in conflict analysis and conflict transformation techniques. Teachers need to know how to work with children in difficult circumstances.

Where existing means of educational delivery does not function or cannot reach local communities, families, and schools, alternative means of delivery must be found. One effective approach is to mobilize NGOs or other grassroots organizations.

MOES should start proper assessment and documentation of the loss or damage to the education sector due to the conflict and prepare appropriate reconstruction strategies.

Education reform strategies should be designed in such a way that all interventions target the root causes of conflict. Education has the potential to reduce differences and inequalities in the society and build peace and harmony among the social groups. The peace-building role of education must be promoted.

4. IMPROVING THE QUALITY OF TEST PAPERS AND ENSURING CONSISTENCY IN MARKING

Use chartered examiners for test development, moderation, and marking. Testing is a specialized field requiring high level of professional expertise and integrity. It should be recognized that setting test items that test higher skills calls for special expertise on the part of test setters as well as markers. Currently, the selection of test developers, moderators, and examiners in OCE is done rather indiscriminately. No surprise, test papers have multiple flaws and marks given are not consistent. Often guidelines for selecting and using the testing personnel are not sincerely followed due to the massive amount of job to be done within a short period of time. It is wrong to assume that any schoolteacher can function as a test expert. Therefore, the OCE should adopt a system of accreditation or licensing where only those who have received the required training course in test and measurement and have demonstrated the right aptitude to serve as the examiners should be used in test development, moderation, and examination of answerbooks. The OCE should give the status of chartered or licensed examiner only after the candidate has demonstrated sufficient ability to do the core jobs of testing. Those demonstrating a high standard of consistency in this work should be accredited as chartered examiners. Teachers applying for accreditation as chartered examiners should have completed two to three weeks of training on testing and measurement. These training courses can be provided either by the OCE itself, or the National Center for Educational Development (NCED) may be requested to conduct such courses. Such courses should also be made available through the Education and Training Centers (ETCs). The status should be renewable every three years or so. This proposal to create chartered examiners will raise the status of this work. This provision will also improve the quality of school-based assessment. In the immediate term, it might not be feasible to manage the task of giving training and licensing the examiners. Therefore, as a first step, head examiners and question setters should be required to obtain training and accreditation. Gradually, this should be applied to the markers/examiners of the core subjects such as English, Mathematics, and Science. At the same time, it is imperative to include a range of assessment

methods and tools for teachers, both in initial training and in-service training courses. It will require that CDC and OCE work closely with FOE, HSEB, and NCED that are responsible for teacher training.

Organize item-writing workshops. Our studies have revealed that the test papers are not representative of the country's diverse educational and socio-cultural, ethnic, and linguistic settings. The test items are found to have urban bias, and favor children proficient in Nepali. Test developers are drawn mostly from school teachers or university professors from the Kathmandu Valley. A rapid analysis shows that the test papers used in different years do not differ much mainly because the same sets of test developers are used year in year out. Good tests can be developed through a participatory process, where senior and experienced teachers meet in designated places to participate in the item-writing workshops. The widespread involvement of teachers from various parts of the country in item-writing can be an important source of test items. These test items can later be examined or moderated by panels of teachers and experts in Kathmandu prior to their use. It is our recommendation that at least five item-writing workshops be conducted annually prior to the development of test items. This has multiple benefits. First, it can develop a sense of ownership and involvement on the part of teachers working in different parts of the country. Second, the OCE would be able to acquire a large pool of test items from which it can choose the best. Third, questions thus prepared can be representative of different settings.

Use panels of specialists rather than individuals to develop test items. The introduction of the specification grid has gone a long way in improving the quality of test items in recent years. While there have been significant improvements in the ways tests are constructed, according to our technical analysis of the test papers, there are still serious problems with the test items. Contents analysis of the test papers revealed a number of defects in the items: vagueness, repetition, poor formulation, ambiguity, lack of clarity, etc. What is most disturbing is the excessive use of tests that only measure rote memorization and the mastery of subject matter. Analysis of test papers used in SLC in six core subjects suggests that the test items, for the most part, are designed to test the acquisition of lower-order abilities at the cost of higher-order abilities. The use of tests emphasizing lower-order abilities promotes learning strategies that are superficial or short-term (memorizing, rehearsing, and rote learning). A system of education that only aims to develop such abilities on the part of learners has little to offer towards the realization of the individual and social goals of education – economic growth, nation-building, social transformation, and development of creative and independent citizens. Demand for higher level skills will grow further as more and more youths are seeking employment outside the country. Therefore, the quality of test items needs to be improved that will call for changes in the ways tests are prepared.

Undertake gender and/or equity analysis of test materials. Gender and/or equity analysis of test materials has shown that test items favor certain groups of students, while others are not favored. Use of too formal words, urban bias, use of masculine nouns and pronouns, predominant use of masculine characters, heavy representation of high-caste groups, etc. have been frequently reported. It is, therefore, recommended that test materials be examined through gender and/or equity perspectives to avoid any potential biases and deficiencies.

Collect tests prepared and used by teachers. Curriculum and textbooks writers, experts, and test developers need to know how students in schools are tested. They need to know the kind of test items that are in use in schools. The District Education Offices should collect test items

prepared and used by teachers. These items can be further developed and improved and brought to use in SLC.

Establish a national item bank. National item banks of well-developed test items should be developed for current and future use. The establishment of such a bank will enhance access to well-tested and standardized test items. In India (CBSE) and Sri Lanka (NETS), test items are pre-tested, calibrated, improved, and deposited in the item bank.

Strengthen the conference marking system already in use. Conference marking was a major step adopted by OCE towards ensuring consistency in marking. Our data suggest that conference marking is no more than a physical gathering of examiners where examiners work in isolation rather than in group. There is little evidence of the head examiners providing necessary supervision and monitoring to the examiners. There is a need to strengthen the existing conference marking system. One way is to allow the conference system to work is to take each subject at a time so that examiners marking a particular subject would sit and work together.

Add to those problems the difficulty of standardizing grading procedures among many different individuals who neither meet each other, nor share special training for the marking process, nor Grade against standardized responses.

Adopt a system of double or panel marking for ensuring consistency in marking. Inconsistency in marking is something which can be difficult to do away with so long as essay-type test items are used in examinations. Our prospects for using objective, multiple-choice test items in SLC are virtually non-existent. Therefore, there is a need for continuous reform in the marking system. The OCE thus might consider adopting a system of double marking where each answerbook is examined by two examiners. Such a system can be costly. But, one should be certain that parents would be willing to bear the costs given the very high stakes of the SLC examinations.

Test and adjust the marking scheme annually. Marking schemes have served well in ensuring consistency in marking. At times, markers are found not to use the marking schemes. There are instances these schemes could not provide much help to the examiners. There are inconsistencies in the schemes themselves. Some schemes suggest desired responses, while others only indicate the number of marks to be allocated to each question or sub-question. In this case, no desired response is indicated. Therefore, we suggest that continued improvements are necessary in the schemes. It may be suggested that prior to their use the schemes should be tested marking the answerbooks of a sample of students. If necessary, the scheme should be adjusted to cater for responses not covered by the marking scheme but which demonstrate outcomes of the achievement.

Develop prototype tests and make them available to schools. There are all kinds of commercially produced and compiled tests. These products do more harm than good. The OCE should develop prototypes of tests and make them available to schools. Schools can administer these prototype tests to get instant feedback. The results should point out the problem areas where both teachers and students need to focus to enhance their chances. Through these prototype tests students would be able to know the standards and expectations of the SLC examinations. They would be able to test themselves and find out how much they have learnt and what difficulties and weaknesses they have. To begin with, such tests should be developed in core subjects such as Nepali, English, Mathematics, and Science. It is probably not too early to recommend that the OCE should consider establishing a system of online assessment where SLC-takers could test their ability through online.

5. IMPROVING THE ADMINISTRATION OF PUBLIC EXAMINATIONS

Strengthen the administration of Grade 8 examinations. The Government is considering extending the scope and duration of primary education from Grades 1 to 5 to 1 to 8. That means that Grade 8 will be the terminal Grade of primary education. Grades 8 terminal examination conducted by the District Education Office is very informal in nature and this examination does not operate like level-end examination. The District Education Office should continue to take the responsibility of organizing and administering this examination. It should be made mandatory that all students take this examination. Admission to Grades 9, the first Grade of secondary level education, should be based on the performance of students in Grade 8. It is essential to provide learning guarantee for all students as they progress through key transition points from a lower level of education to a higher one.

Abolish send-up examinations immediately. Although the Government is not involved in the planning and conduct of send-up examinations, these examinations are widely used to pre-select students for SLC. Both the public and the Government have a tendency to measure school success in terms of pass rate in SLC. Schools with high pass rates command respect and prestige in the society and vice versa. Pass rates are important measures to both public and private schools. Public schools need high pass rates to maintain the minimum pass rate to be able to avoid penalty. On the other hand, private schools need high pass rates to maintain or further increase their enrollment by impressing parents who often choose schools on the basis of pass rates. Both categories of schools are thus under pressure to improve their pass rates. These schools are tempted to encourage low-performing students to drop out or transfer to improve their schools, average test scores. Thus, send-up examinations serve as instruments to weed-out students perceived to be weak and performing poorly in the big test. Both types of schools abuse send-up to improve their reported results. The send-up examinations are not useful in many ways although schools use them as important political instruments. First, it is not fair to prevent a student from participating in the national examinations after having spent ten or more years of his or her life in a school. Second, any kind of screening before SLC can give a wrong signal to the public further mystifying the SLC examinations. Those who view it as the Iron Gate will continue to do so, portraying SLC as the 'impossible task.' Third, send-up examinations distort the reporting of results by causing passes to be reported as a proportion of SLC candidates, not Grades 10 students, thus hiding the true level of achievement of individual schools and also nationally. Variations in the send-up rate make it impossible to compare pass rates as a proportion of the Grades 10 group from year to year. Some argue that there is no logical reason to retain SLC in the current form. If send-up results correlate with SLC marks, then there is no point conducting either one of them. If they do not correlate with each other, then pre-selecting students would mean unfair exclusion of students who would otherwise have passed the SLC examinations. In fact, several students removed by private schools after send-up who later chose to appear in SLC from other schools are found to be passing SLC in good standing. For these reasons, the study team is firm to recommend that schools, whether private or public, must be prevented from using the send-up examinations to pre-select students.

Establish examination centers based on proper mapping. Although there have been a few attempts to undertake school mapping in the past, most schools in Nepal are established based on political considerations rather than any hard evidence generated through any mapping. This is particularly true for secondary schools. Having a secondary school in the community is often

perceived as a symbol of power and prosperity. Data from the field suggest that examination centers are not conveniently located for a large majority of students. It is therefore suggested that MOES should consider undertaking a school mapping survey so as to identify potential sites (schools) which could be developed as examination centers. In recent years, exam centers are determined from the point of view of security. While the importance of security cannot be disputed, other pedagogical and practical matters should also be seriously considered (e.g., provision of accommodation, availability of furniture, exam hall, drinking water, toilet, distance from home to the center, etc.).

Standardize the administration of public examinations. One pre-condition of a large scale, centrally administered public examination is that they should be administered under uniform conditions. The OCE has made every effort to standardize the conditions and procedures of administration. But, our observations reveal that the actual administration has been less than uniform. We found that the SLC examines a large number of students in many scattered examination centers with test instruments that are not standardized, invigilators with varying degree of experience and qualifications, procedures lacking uniformity and quality control, and examiners with different expectations and levels of expertise. In some places, we were able to observe massive cheating taking place without any interference, while in other places cheating did not exist at all. Some examination centers were fully equipped with the required physical facilities, while in others there was a serious shortage of such facilities. Conditions under which examinations are conducted do influence student outcomes. Therefore, the study team recommends that actions be taken to standardize the administration of the SLC examinations.

Make SLC a student-friendly public examination system. Numerous attempts have been made in recent years to make SLC a student-friendly examination. However, many existing examination rules and regulations are not in favor of students. Many of the OCE operations are yet to be transparent. First, the students below 14 years of age are not eligible to appear in SLC. Second, those who pass SLC through the supplementary examinations students are not awarded the 'division' based on their performance. Even those who have secured distinction or first division marks are given a 'pass' division, while those who score third division marks also obtain the same division. This is not fair to the high performing students. Third, students are tested in unfamiliar environments and supervised by unknown people. Fourth heavy security presence in the examination halls is intimidating to students. Fifth, those who would like to re-take examinations in order to further improve their Grades or marks are not allowed to do so. Sixth, students can appeal for re-totalling of their marks, not re-evaluation of the answerbooks. These and many other examination-related rules and regulations make SLC a mystery rather than a transparent public activity. This reduces seriousness and objectivity on the part of test developers and examiners. Such unfriendly practices must end. Therefore, the study team makes the following recommendations:

First, the age requirement of 14 years to be eligible for SLC has little or no sense. Student's age should not necessarily be the eligibility criterion. The age requirement should be amended to allow even younger children to sit for SLC.

Second, those who pass SLC by taking the supplementary examinations should be treated like regular students. The present practice of giving a 'pass' regardless of the marks obtained must end.

Third, where possible, students should not be taken away from their homes and families to appear in SLC.

Fourth, the presence of security personnel inside halls should be stopped immediately.

Fifth, if students desire to improve their Grades or marks by re-taking SLC examinations, they should be allowed to do so. They should be offered an opportunity to improve their Grades through subsequent attempts in different subjects separately. Many students join the world of higher education upon completion of their secondary education. While many who manage to pass SLC will study in institutions of higher learning in Nepal, some will seek admission abroad. Higher education is becoming very competitive. Whether or not one is able to get admission into overseas institutions and obtain financial support and/or scholarships also depends on performance in SLC. Higher education institutions within the country are also gradually becoming competitive, especially with the establishment of private universities. Some students may want to improve their SLC performance by taking the test more than once. Currently, students cannot take SLC more than once after they pass it. Therefore, it is suggested that students be given an opportunity to improve their Grades. This practice is already in operation in some SAARC countries. India, Pakistan, and Sri Lanka allow students to sit for improvement examination.

Finally, if students are not satisfied with their marks and would like their answerbooks to be re-evaluated, they should be allowed to do so. Each candidate should be entitled for full appeal (rechecking and remarking of scripts) for a maximum of two subjects.

6. IMPROVING CERTIFICATION PRACTICES

Introduce the letter grading system. Public examinations around the world use different methods of grading and certifying the achievement of students. In Nepal, the OCE uses a very simple method of grading, where actual raw scores obtained by students in individual subjects are reported separately. It has a number of limitations. First, in the raw score method of grading students' performance is scored using a scale of 101 (0 to 100). One can obtain a maximum possible mark of 100, representing the highest 'standard.' A score of 0 would signify that the learner has not learned anything. Learning theories tell us that human ability to learn is limitless, and it does not end abruptly at any point. It is artificial to try to reduce human achievement to a single score. In real situation, it is impossible to prove that the learner has not learned anything. This system of grading is thus contrary to our commonsense as well as many proven theories of human learning. Second, the existing grading system provides very little information about the students' achievement. For instance, the pass mark of 32, which is the same across all subjects, does not really tell us anything about what a student knows or can do. Third, students are awarded 'division' by combining the marks obtained by students in different papers. This method does not take into account the element of spread of scores in different subjects variations in scores from year to year. For instance, in Mathematics, students' scores may vary from 3 to 97, and in Nepali from 33 to 61. For a person who obtains 33 in Nepali and 97 in Mathematics, the latter receives three times the weightage of the former. In this case, the mark of 61 obtained by a student in Nepali has much more value than a mark of 61 in Mathematics. Thus, the aggregation raises the possibility of the marks obtained in one subject dominating or influencing the others. In sum, there is a weak relationship between the examination results and the actual achievement of a student.

The study team feels very strongly that the deficiencies of the existing grading system must be corrected so that students' achievement is reported in a more meaningful way. We, therefore, recommend that the levels of achievement of students in different subjects be reported in terms

of Grades rather than raw scores. Grades represent a band of scores allowing the possibility of verifiable difference(s) across the Grades. Attempts are made to demonstrate relationship between Grades and achievement with the help of descriptors that define precisely what a student with a particular Grade has achieved or has not. This system treats the learning process as a continuum with no terminal point. It ensures comparability in Grades obtained by students from subject to subject and from year to year. Switching over to a new system of grading and reporting requires public acceptance. Therefore, we recommend that the MOES prepare a green paper highlighting the deficiencies of the existing system and describing how the new system of grading and reporting is to work. The green paper should then go for nationwide debate before a plan of action is prepared for implementing the Grade system.

Introduce single subject certification. The SLC represents a group certificate in which a student must pass all eight subjects to obtain a 'pass' certificate. Group certification does not acknowledge one's success in individual subjects. If a student has obtained 20 in English and 60 or more in the remaining seven subjects each, s/he will not be provided with a pass certificate until s/he achieves a minimum mark of 32 in English. Let us assume that the student is not able to achieve the minimum pass mark of 32 in English despite 10 tries. Such a situation, the student's achievement in other seven subjects is not acknowledged because of on poor performance in English. There seems to be no reason why performance which satisfies the criterion (32 in the case of SLC) in a given subject should not be given a certificate. Thus, the group certification system is not in favor of students. If the purpose of examination is to recognize the achievement of learners, it should do that. It should be noted that the new certification system will substantially increase the numbers of students receiving SLC without seriously compromising the standards. There is sufficient evidence in favor of the new system. In 2060, for instance, the pass rates in individual subjects ranged from 63% to 97%, while the overall pass rates were much lower (51%). It suggests that using individual subject certification instead of the current approach would enable a far larger number of students to advance in their academic careers. The notion of single-subject certification was introduced earlier under the Secondary Education Development Project (SEDP). Our survey data suggest public support for the single-subject certification system. Therefore, as a first step in the development of a new system of certification, the Government should move to a single subject approach immediately. It is to be noted that India and Sri Lanka are also moving towards the system.

Abolish the practice of declaring students as pass/fail in the long-term. The proposed grading and single-subject certification system described above paves the way for abolishing the current practice of declaring students as pass or fail in SLC. The grading system reports the level of learning achievement of students without categorizing them as 'pass' or 'fail.' This practice is either already in practice in other SAARC countries or being considered very seriously. The new system will reduce the very high stakes involved in SLC examinations, which have given rise to a number of undesirable practices such as teaching to the test, cheating, cramming, malpractices in examinations, the growing phenomenon of shadow schooling, etc. It also reduces the strong control of examinations on teaching and learning. The proposal to abolish the pass/fail system should be debated nationwide before its final acceptance as a policy. In particular, this calls for serious adjustments within higher education, employment, and the civil service system.¹

¹ Shadow schooling generally refers to supplementary tutoring provided to students outside school hours. Students attend such classes either to compensate for inadequate teaching or promote their chances of success in

Introduce alternative examination system to clear the backlog of unsuccessful students. There is a huge backlog of students who have made attempts in the past to pass SLC, perhaps several attempts, but have not managed to do so. There is a need for a second way of managing high student failure. We will need to develop an alternate SLC for students who do not possess academic skills to the desired extent but have the potential to do well when they go to the job market or elsewhere. These students would benefit from alternative arrangements that are less rigorous academically. It may be noted that many countries allow failing students to earn a diploma through waivers and exemptions, alternate and substitute tests, and alternate diplomas. It is commonly used in many states in the United States.

Reevaluate the system of giving grace marks. Nepal has a system of giving 'grace' marks in SLC. It takes place at two stages. First, the OCE instructs examiners to double-check marks obtained by students who are on the borderline (those who are very close to meeting the pass mark of 32). Often, this instruction is taken as a suggestion to be lenient towards those who are very close to passing. Second, the Examination Board at times decides to give some marks (can vary from year to year) again to the borderline students with the intent of elevating the pass percentage in SLC. Thus, there are chances of some students benefiting twice from this lenient policy of the Examination Board. Grace marks work as a means of positive discrimination favoring children who attend schools operating in poor conditions, who would have fared well had these schools been provided with sufficient resources. Many have criticized the current practice of giving grace marks because it only favors some students, not others. Some argue that it takes the form of a political decision rather than a well-justified one. This practice can be improved in two ways. First, grace marks can be agreed, based on the differences in the difficulty level of the test from year to year, making all who take SLC liable for getting these marks. Secondly, it can also be decided based on the consistency analysis of test scores.² In any event, the OCE needs to reevaluate the system and formulate a sound policy concerning grace marks that is more evidence-based rather than political, as many have claimed. In India, Maldives, Pakistan, and Sri Lanka the examiner cannot adjust a mark even if it falls close to the boundary line.

Take concrete actions to restore public faith in the SLC examinations. Our focus group discussions with hundreds of thousands of parents, students, teachers, and other local stakeholders reveal low public faith in OCE and SLC examinations. The activities of OCE are not perceived to be fair, objective, and professional. It is perceived as a bureaucratic, inefficient, and lethargic institution. The media analysis also drew the same conclusion: there is little public faith in the OCE and its leadership. It is not healthy for a public examination of national importance to be perceived this way. Restoring public faith will require a number of actions such as increased transparency, higher level of professionalism, constant communication and dialogue with the public, publishing standard operating procedure (SOP), etc.

high-stake examinations such as SLC. In some places, it is known as double schooling. Such classes can be very expensive.

² Consistency analysis involves marking of the same set of answerbooks by three different examiners. This is done to find out if a student obtains the same marks if his or her answerbook is marked by different examiners.

7. USING EXAM RESULTS FOR ENHANCING EDUCATIONAL IMPROVEMENT AND ACCOUNTABILITY

Extend the scope of student registration. Test and measurement experts have long argued for using the results of public examinations for educational improvement. These results are meaningful only when they can be understood and interpreted. The SLC results could be better understood if they could be analyzed in terms of school characteristics, student characteristics, and family characteristics. One way to do this is to establish a link between the national Educational Management Information System (EMIS) under the Department of Education (DOE) and SLC results. This is not very easy. One other promising option is to extend the scope of student registration requiring schools and children to submit most important information such as age, sex, caste/ethnicity, parental literacy or educational attainment, parental occupation, school location, etc. It does not add any financial or administrative burden but may help understand and analyze SLC results in a more meaningful way.

Make answerbooks of the best performing students available. In recent years, the practice of identifying and honoring best performing students seems to be on the rise. Business firms, industries, political parties, non-governmental organizations, associations of ethnic groups, and several others are found giving awards and honors to the best performing students. The answerbooks of these best performing students can be released to help teachers and other students prepare for future tests. These answerbooks can serve as standards or examples to the hundreds of thousands of students who sit for SLC. The ultimate goal is to improve the entire education system. Therefore, we recommend that the answerbooks of these students be made available to schools and students. This practice can help the OCE regain its public faith and support.

Establish a strong system of analyzing test results and feeding this information back into school system. There is ample amount of information within the OCE, which is never analyzed and disseminated, either to help senior policymakers and managers make decisions or share information and experience amongst and inform the public and schools. Test experts stress the formative use of summative tests such as SLC to improve the quality of teaching and learning in schools. This information can contribute to the quality of teaching and learning in schools by identifying aspects of curriculum that appear to be misunderstood or simply ignored by students. If analyzed properly, educational administrators, both central and district, are able to identify disparities in educational achievement in terms of gender, ethnic/caste group, school type, eco-region, and a host of other variables of interest.

Improve communication with the education system as a whole. The OCE is disconnected from the hundreds of thousands of schools and teachers. The entire education system must know what is happening inside the OCE and the system must be constantly updated about new developments. Therefore, we recommend that OCE take a systematic approach towards informing schools and teachers about how students have performed on examinations. It should publish a *newsletter*, which should be circulated to all schools in the country. The newsletter can contain item-analysis data for each examination paper. Examples of good, average, and poor answers to questions can be presented in the newsletter for the benefit of students and teachers. The newsletter can become an excellent medium of establishing communication with school system as a whole. Through the newsletter, the OCE can also share expectations with schools, teachers, students, and parents so that they know what they need to do to achieve success in SLC. Further, we have witnessed large increases or decreases in pass rates in SLC. These

fluctuations are generally acceptable if they can be traced back to identifiable causes and if these causes are clearly communicated to the public when SLC results are released. They undermine the education system if they appear to occur for no reason. Such unreasonable changes cause the public to lose faith in the examination system. At times, 'wild swings' in pass rates are often understood to be indicative of indiscriminate marking. Therefore, it is essential to be in touch with school system and the public as a whole through some means of communication.

Prepare and publish a report card of each and every school. The District Education Office should prepare a performance profile of each secondary school through extensive analysis of the SLC test scores and the profile must be made public to create pressure on schools for higher level of performance. Based on the past performance in SLC, the DEO should set performance goals for each school and measure how well school is meeting the performance goals. In addition to the overall pass rate, performance profile can contain: average pass rates for different categories of students (e.g., gender, language group, socio-economic status, literacy level of parents, ethnic group, Dalit); average marks obtained by different groups of students in different subjects; overall standing of school compared to other schools in the district, region, and the nation; etc.

Identify low performing schools and require them to prepare a time-bound reform plan. Addressing the problem requires more than making rules and more rules. It requires identifying which schools could not meet the minimum standards and why. Punishment is never the solution to improving low performing schools. Low performing schools are most likely to be those that are operating in difficult circumstances and serve the children coming from poor households, ethnic minorities, and disadvantaged communities. Such low performing schools should be identified and causes for their poor performance analyzed. Each school should prepare a learning achievement improvement plan (LAIP), which should be thoroughly discussed with SMC members, parents, community members, students, teachers, and all other relevant stakeholders. The plan should be time-bound, and must identify strategies and actions that would lead to increased student performance. As for the present nothing is being done to help the districts, schools, and students at risk.

Review the existing reward and punishment and incentive system. Under the current Education Regulations, schools that perform below 15% level (in terms of pass rate) for three consecutive years are penalized. Most recently, schools with a pass rate of 50% or more in SLC are rewarded with a sum of Rs. 300,000. These policies may have good intentions: encourage schools for higher level of performance. The equity impact of these policies is severe. It does reward those schools and communities that are already rewarded, but does injustice to those schools that are operating in poor communities lacking even the most basic resources required for good performance. Our own research suggests that performance in SLC is not the outcome of school actions alone. Children coming from poor communities do perform poorly in high stake examinations like SLC due to their several disadvantages (e.g., language). It is not fair to punish the institution and the community based on SLC results. Existing reward and punishment system can further widen the performance gap between schools. Any scheme to reward good performance should be combined with the appropriate strategies to support the poor performers.

Make districts accountable for performance. In recent years, the use of SLC results for accountability purpose has grown significantly. While it is important to ensure that schools and teachers are accountable for student performance, SMC members, educational administrators, school supervisors, trainers, and curriculum and textbook developers should also be made

accountable for performance. A number of actors outside school should also take some of the responsibility. Above all, the DEO influences school outcomes in many ways because many critical decisions affecting school performance (e.g., allocation of financial and human resources, teacher development, teacher management) are taken at the district level. Therefore, we recommend that the degree of accountability being applied to the teachers and schools should also be applied to the district officials as well.

Develop a regulatory framework to regulate the ever expanding phenomenon of shadow schooling. Supplementary tutoring, students receiving instruction in school subjects outside school hours, is found to be pervasive throughout school system, regardless of school type or location. Educational economists define this phenomenon of supplementary tutoring as 'shadow schooling,' where an informal schooling system runs parallel to the formal schooling system. There are mainly two forms of supplementary tutoring: coaching and private tutoring. Coaching generally refers to classes organized outside school hours either by schools or a group of teachers or some voluntary or commercial firms. Private tutoring, on the other hand, refers to instruction obtained either on a one-to-one basis or in small groups from school teachers or somebody else. More than 80% of the total schools in our sample indicated that they organize coaching classes to enhance student performance in SLC. Normally, students are charged a fee ranging from Rs. 100 per month per subject to Rs. 300 for coaching classes. Private tutoring can be more expensive than coaching. Of the total students surveyed, some 90% reported having received some form of supplementary tutoring, whether coaching private, prior to sitting for the SLC examinations. Most students took coaching or private tutoring in Mathematics, English, and Science – often known to be the killer subjects. This is common both in the rural and urban areas. Parents and students of public schools believed that coaching classes reduce the likelihood of failing. On the other hand, parents and students of private schools were firm to say that coaching or private tutoring enhances the likelihood of achieving higher Grades (divisions). Contrary to popular beliefs and expectations, our survey found a negative association between supplementary tutoring and school achievement. The study found a number of reasons such as inadequate teaching, poor academic base, lack of remedial support in schools, overloaded curriculum, teacher pressure, and high stakes involved in SLC that prompt parents and students to go for additional tutoring. It is often impossible to stop this growing phenomenon of shadow schooling for the simple reason that parents will always adopt every possible measure to enhance their students' performance in public examinations. Supplementary tutoring can add a heavy burden on the poor parents. It can also have an adverse effect on regular teaching learning in schools. The scale of coaching or private tutoring has increased to the extent that some kind of policy response is in order. Current non-interventionist approach of the Government toward supplementary tutoring can ruin the formal system of schooling. Therefore, it is strongly recommended that the Government take a more active role by devising a regulatory framework where parameters under which supplementary tutoring can operate are identified.

8. ENSURING EQUITY IN SCHOOLING OUTCOMES

Improving the status of girls' education. A strong positive association was found between gender and performance in SLC. Boys are found to do much better than girls. This is not surprising in a society where girls receive discriminatory and differential treatment both at home and at school. There are two compelling reasons why girls perform so poorly in comparison to boys. First, focus group discussions and informal interviews revealed that most families do not offer conditions at home necessary for girls to do well in schools. For instance, girls do not get

enough time to study at home. Most girls interviewed revealed that they must spend significant hours in household chores (more than 6 hours per day in some cases). Secondly, our case studies reveal that the amount of support and attention that girls receive inside and outside classrooms from their teachers is minimal compared to the boys. Classroom observations showed that the opportunity to learn in classrooms is much lower for girls than the boys. Elsewhere, it has been reported that teachers, whether male or female, have low expectations of girls. Teachers perceive the girl students to be incompetent, lazy, submissive, and less aggressive as compared to the boys (Bista, 2005). There are cultural and social barriers for girls to be effective in their learner role in classrooms. Often, girls cannot communicate with the male teachers. Interestingly, girls themselves do not have faith in their ability to learn subjects like Mathematics and Science. Current Government interventions are directed toward increasing girls' access to schools through scholarships and incentives. While these are necessary, such interventions alone might not be enough in improving the learning achievement of girls. A number of actions are suggested to enhance girls' performance. First, public awareness campaigns are necessary to teach the importance of girls' education in the society as a whole. Such campaigns are necessary also to dispel negative impressions and misconceptions about girls' ability to learn from the minds of parents, teachers, and girls themselves. Second, teachers should be made aware of girls' needs, learning difficulties, and their learning styles through training courses. Third, girls' pass rates should be the criterion of rewarding schools and teachers.

Design and target appropriate interventions to combat poverty, social exclusion, and illiteracy.

All available data seem to suggest that student performance is linked to poverty, illiteracy or low level of educational attainment, and social exclusion based on caste/ethnicity, eco-region, language group, and gender. Both our disparity analysis and equity analysis have documented sufficient evidence to suggest that failure and/or under-performance is a phenomenon occurring frequently in districts or geographical areas with a low HDI. We observed a correlation between HDI and SLC pass percentage, districts with low HDI doing poorly than the others. The survey data also confirmed that the family's socio-economic status, measured in terms of annual expenditure, number of SLC graduates in the family, and hours spent by children in household chores, is significantly correlated with SLC performance. Likewise, the children belonging to Janjati groups and Dalits have a significantly much lower level of performance than other groups. Evidently, school performance is not a school phenomenon alone. It is deeply rooted in the socio-economic and ethnic composition of the society. Purely educational strategies such as curriculum reform, teacher training, or better student assessment tools alone will not thus be enough to address the chronic problem of failure and poor performance. Therefore, the study team recommends that interventions that aim at addressing poverty, illiteracy, inequitable distribution of basic service, social exclusion, and gender discrimination should be implemented with a high priority. In particular, socio-economic programs and educational incentives targeted to the poor, women, ethnic and linguistic minorities, and Dalits are needed. The most recent decision of the Government to provide free education up to secondary level to the children in the Karnali zone is a major step. While the areas-targeted are necessary, such interventions can sometimes serve one group more than the other. The best bet therefore would be to identify the family or the child in need. This requires proper identification of the target group.

Mobilize the entire nation against the war on student failure. Addressing the problem of failure is a shared responsibility. Educators, policymakers, students, parents, teacher unions, political parties, members of the civil society all have a role to play.

9. IMPROVING THE RELEVANCE OF SECONDARY EDUCATION

Enhance the relevance of secondary education to higher education. Some 68% of the total students contacted as a part of the tracer study were found to be pursuing higher education, of which some 45% were involved in full-time studies, while the rest were either employed or self-employed. It appears that many choose to go to higher education after their secondary education. Should this be the case, secondary education ought to be relevant to higher education – meaning that the former should provide all the competencies generally required to pursue the latter. Our data reveal that, on an overall basis, students pursuing higher education do not find the subjects they studied at school level to be relevant, suggesting the need to revisit the courses offered at school level. University professors in general are found to have a low rating of school graduates. They see school graduates lacking the following: good study habits, a sound base of English language, basic understanding of the subject matter, ability to solve problems, analytical mind, and ability to work independently. These observations of SLC graduates and university teachers call for two things. First, there is an urgent need for improving the quality of teaching in schools. And, second, there is a greater need for ensuring greater harmony and integration between school curriculum and the curricula of HSEB and universities. A holistic approach to education is the need of the hour.

Increase the relevance of secondary education to life and employment. The results of the tracer study suggest that those who join the world of work after SLC also find their school education to be less relevant to their current work. Many said that schooling did not provide them the kinds of skills and competencies required to compete in the job market. Several parents, community members, and employers also did not have a high opinion about the relevance of secondary education. It was emphasized over and over again that schooling had failed to prepare children for active participation in adult life and that they did not have the required skills to take part in the outside world of work. During our survey, we observed a significant popular demand for vocational and life skills so that school leavers are able to conduct their life after schooling. Our past experience with vocational education has not been very encouraging. A bifurcated education system where academically weak students are encouraged to join vocational education and others to continue an education with an academic emphasis is also perhaps not the right strategy. A right balance has to be maintained between vocational and general education. While it is necessary to provide some vocational skills that are relevant, functional, and timely for specific jobs at hand, it is also necessary to give our children the general knowledge and competencies that enable them to learn new skills and adapt to the new demands of the constantly changing job market. Children can benefit from an education that gives them a mixed bag of competencies and skills – some of which are immediately useful and can be translated into employment and others that are more general, are robust enough to last a lifetime, which can provide the basis for new and updated competencies. In the above context, it is essential that the sharp divide between general education and vocational education must end. A vocational education that is not backed by strong general education would soon render youngsters helpless because skills become outdated as a result of changes in the economy and technology. A broad general education enables children to learn new things as per the demand of the changing times. On the other hand, a general education not combined with some vocational education will not prepare children for active participation in adult life. In today's world, jobs are becoming increasingly educational and education is becoming increasingly

vocational as a part of the process of life-long learning. We would need an educational strategy that ensures the convergence of general and vocational education.

Plan for Implementation of Recommendations

This section provides a implementation schedule.

First Column

Under the heading "Recommended Intervention" this column lists key actions to be taken by various agencies in the Government.

Second Column

Under the heading "Responsibility for Implementation" this column lists the institutions that will be responsible to carry out each of the activities listed under the first column. Although one institution will be responsible in implementing a particular intervention, other institutions will be assisting it in various ways.

Third to Fifth Column

These columns show the time for implementation of various activities. The shaded blocks indicate that the specified activity has to be performed in a given timeframework – immediate (2005/2006), short term (2007-2010) and long term (2010 to 2015).

Plan for implementation of recommendations

Recommended Intervention	Responsibility for implementation	Timeframe for implementation		
		Immediate 2005/06	Medium term 2007 - 2010	Long term 2010 - 2015
I. Developing institutional capacity of OCE/SEB				
Create in OCE for transitional period a Development Fund in accordance with the provision of the Office Operation Fund Act 2043 and the Regulation of 2050	MOES/OCE	█		
Prepare and implement Plan to raise funds for OCE by various sources	OCE	█		
Initiate works for establishing Secondary Education Board (SEB)	MOES/OCE	█	█	
Amend the current HSEB ACT 2046 and promulgate a new act to create an independent Secondary Education Board (SEB) by merging OCE and HSEB with a mandate to conduct Grade 12 examinations in addition to Grade 10 examinations.	MOES		█	
Establish Regional and District Examination Offices under SEB and transfer them the authority to conduct Grade 10 examinations.	OCE/SEB		█	
Develop a national system of assessment and testing	OCE/SEB			█
II. Reforming the existing secondary curriculum				
Make decision to limit SLC test papers on Grade 10 curriculum materials only	MOES/CDC	█		
Explore the possibility of testing and certification in additional subjects.	MOES/CDC		█	
Develop basic courses in Mathematics and Science and introduce them in SLC.	CDC/OCE	█		
Teach Nepali as a second language in early Grades	MOES,CDC		█	
Start a process to streamline the number of subjects offered in school curriculum.	MOES,CDC		█	
III. Improving teaching-learning conditions in schools				
Start a system of selecting head teachers through a competitive and transparent system.	MOES,DOE RED,DEO		█	
Amend the Education Regulations so as to bring improvement in the appointment of new head teachers.	MOES,DOE		█	
Appoint a expert to revisit the exiting provision of training head teachers and propose necessary revision	MOES,NCED		█	
Introduce a policy on homework	DOE		█	
Amend the exiting Education Regulation to introduce policy of mandatory provision of frequent testing of students in public schools	MOES,DOE OCE/SEB		█	
Set up library in each secondary school	DOE			█
Bring reform in the secondary curriculum to give grater emphasis to	CDC		█	

Recommended Intervention	Responsibility for implementation	Timeframe for implementation		
		Immediate 2005/06	Medium term 2007 - 2010	Long term 2010 - 2015
reading in Nepali and English				
Make a careful study to explore possibility of school merger in the Terai and urban areas	DOE			
Make study to explore the possibility of residential schools in the mountain and remote district	DOE			
Prepare proper mapping of schools	DOE			
Initiate actions to improve teacher management in public schools	DOE			
Increase allocations in secondary education and make change in Education Act to permit schools to raise funds locally	MOES			
Initiate action to make it mandatory for DEOs to regularly visit schools, particularly those that are poorly performing.	MOES,DOE			
Introduce reform to minimize the negative effect of SLC through reform in curriculum, test paper and class room teaching	DOE,CDC OCE/SEB			
Prepare the academic and professional profile of Science, Mathematics and English teachers	DOE,DEO			
Reintroduce National Development Services (NDS) as a way of meeting the shortage of qualified teachers in English, Mathematics and Science	MOES			
Make preparation for and introduce the open education system in secondary education	MOES			
Start preparing for post-conflict reconstruction of school education system	MOES			
IV. Improving the quality of test paper				
Start a system of accreditation or licensing of head examiners, question setters etc.	OCE/SEB			
Organize regular training courses in testing and measurement for head examiners, question setters and other examiners.	OCE/SEB			
Start organizing item-writing workshop	OCE/SEB			
Collect test items prepared and used by school teachers	OCE/SEB			
Develop a pool of test items	OCE/SEB			
Undertake gender and /or equity analysis of test materials and bring appropriate improvement in question paper	CDC			
Strengthen the conference marking system	OCE/SEB			
Adopt a system of double or panel marking	OCE/SEB			

Recommended Intervention	Responsibility for implementation	Timeframe for implementation		
		Immediate 2005/06	Medium term 2007 - 2010	Long term 2010 - 2015
Make a system of testing marking schemes before use	OCE/SEB	■	■	
Develop prototype test and make them available to schools	OCE/SEB		■	
Establish a system of on line assessment	OCE/SEB			■
V. Improving the administration of public examination				
Start conducting Grade 8 examinations in a more formal and serious manner	DOE,DEO	■		
Abolish send-up examination	MOES,OCE/SEB	■		
Start a system of establishing examination centers based on proper mapping	OCE/SEB,DOE		■	
Make amendments in the Educational Regulation to allow even younger than 14 years of age to sit for SLC	MOES,OCE/SEB		■	
Make decision to award divisions to candidates who pass SLC in supplementary examinations	MOES,OCE/SEB		■	
Make amendment in the Education Regulation to let students improve their Grades or marks by retaking the SLC examinations	MOES,OCE/SEB		■	
Make amendment in the Regulation to make students entitled for full (rechecking and remarking of scripts) for a maximum of two subjects	MOES,OCE/SEB		■	
VI. Improving Certification practices				
Prepare a green paper highlighting the deficiencies of the exiting system and proposing a new system of letter grading and bring it to nation wide debate	OCE/SEB		■	
Introduce single subject certification system	OCE/SEB		■	
Bring to debate the practice of declaring students as pass or fail	OCE/SEB	■		
Prepare a plan to introduce alternative SLC examination system	MOES		■	
Reevaluate the system of giving grace marks	MOES,OCE/SEB	■		
Take concrete action to restore public faith in the SLC Examination		■		
VII. Using examination results for enhancing educational improvement and accountability				
Extend the scope of student registration for SLC examination to help understand and analyze SLC results in a more meaningful way	OCE/SEB DOE,DEO	■		
Make answer book of best performing students available	OCE/SEB		■	
Establish a strong system of analyzing test result and feeding this information back into school system	OCE/SEB		■	

Recommended Intervention	Responsibility for implementation	Timeframe for implementation		
		Immediate 2005/06	Medium term 2007 - 2010	Long term 2010 - 2015
Publish OCE/SEB newsletter	OCE/SEB	■		
Prepare and publish report cards of each and every school	DOE,DEO		■	
Identify low performing schools and require them to prepare time-bound reform plan	DOE,DEO		■	
Review the existing reward and punishment and incentive system	MOES	■		
Make DEOs accountable for school performance	MOES,DOE		■	
Develop regulatory framework to regulate the ever increasing practice of private tutoring and coaching lessons	MOES,DOE		■	
Take action to improve the status of girls' education	MOES	■		
Design and target appropriate interventions to combat poverty, social exclusion and illiteracy	NPC		■	
Mobilize the entire nation for the war on student failures	MOES		■	
IX. Improving the relevance of secondary education				
Enhance the relevance of secondary education to higher education	MOES CDC,DOE		■	
Increase the relevance of secondary education to life and employment	MOES CDS,DOE		■	