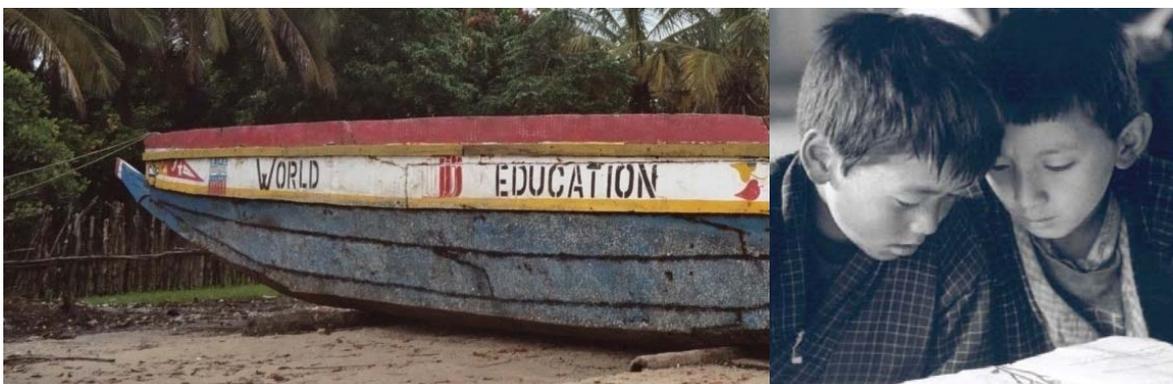


Impact Assessment of SDC/Helvetas Basic Education Projects in Bhutan

Report



A study conducted on behalf of
Helvetas, Swiss Associations for International Cooperation

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Zug, June 30th, 2009

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Abbreviations

AT	associate teacher (later mentor)
BBE	Bhutan Board of Examinations
B.Ed.	Bachelor of Education
BLSS	Bhutan Living Standard Survey
CA	continuous assessment
CAPSD	Curriculum and Professional Services Division in the DSE
CERD	Centre for Education Research and Development
CIDA	Canadian International Development Agency
CNR	College of National Resource, Lobesa
CoE	College of Education (former NIE)
CPS	Community Primary School
Danida	Danish International Development Assistance
DEO	Dzongkhag education officer
DoE	Department of Education
DSE	Department of School Education in the MoE
DYS	Department of Youth and Sports in the MoE
EFA	Education for All
EMSSD	Education Monitoring & Support Service Division in the DSE
ESRC	Education Sector Review Commission
EVS	environmental studies
FYP	Five-Year Plan
GPEN	Gross Primary Enrolment Ratio
GNH	Gross National Happiness
GNHC	Gross National Happiness Commission (former Planning Commission)
HDI	Human Development Index
HRD	human resource development
HSS	Higher Secondary Schools (classes XI-XII)
IA	impact assessment
ICT	information and communication technologies
IDA	International Development Association
INSET	in-service education and training
JICA	Japan International Cooperation Agency
LDC	Least Developed Countries
LSS	Lower Secondary School (classes VII-VIII)
M.A.	Master of Arts (university degree)
MDG	Millennium Development Goals
M.Ed.	Master of Education
M&E	Monitoring and Evaluation
MSS	Middle Secondary School (classes IX-X)
MoE	Ministry of Education (former MoHE)
MoHE	Ministry of Health and Education (later MoE)
MoLHR	Ministry of Labour and Human Resources
NADEL	Nachdiplomstudium für Entwicklungsländer der Eidgenössischen Technischen Hochschule Zürich / Postgraduate Studies on Developing Countries of the Swiss Federal Institute of Technology Zurich
NBIP	national based in-service programme
NGO	non-governmental organisation

NIE	National Institute of Education (later CoE)
NID	National Institute for the Disabled
NPER	Net Primary Enrolment Ratio
NTTA	National Technical Training Authority
Nu.	Ngultrum (currency of Bhutan, Nu. 100 ~ CHF 2.30)
PEP	Primary Education Programme
PGCE	Post Graduate Certificate in Education (available from CoE Samtse)
PHZH	Pädagogische Hochschule Zürich / Zurich University of Teacher Education (former TTC)
PITT	Partnership in Teacher Training
PIU	Project Implementation Unit
PP	Pre-primary School
PPD	Policy and Planning Division
PS	Primary School (classes PP-VI)
PTC	Primary Teacher Course
REC	Royal Education Council
RGoB	Royal Government of Bhutan
RUB	Royal University of Bhutan
SBIP	school-based in-service training programme
SBVT	school-based vocational training
SDC	Swiss Agency for Development and Cooperation
SEP	Second Education Project
STEP	Support for Teacher Education Programme
ToR	Terms of Reference
TTC	Teacher Training College / Seminar für Pädagogische Grundausbildung
UNICEF	United Nations Children's Fund
VET	vocational education and training
YGC	youth guidance and counselling
YGCD	Youth Guidance and Counselling Division of the MoE (former YGCS, later DYS)
YGCS	Youth Guidance and Counselling Section (later YGCD)
ZLTC	Zhungkha Language Teachers Course

Acknowledgement

This study would not have been possible without the professional and kind support of various stakeholders. I would like to express my gratitude to

- the team that formulated the Terms of Reference (see annex 1) for their competent work and hence good basis for the impact assessment;
- Helvetas in Zurich and Thimphu for preparing and organising the data collection in Bhutan;
- the local consultant for the pleasant cooperation, for working very hard and giving her best in collecting the required quantitative data and essential documents;
- all Swiss and Bhutanese participants in interviews and group discussions for investing ample time for answering all my questions and sharing their opinion freely;
- directors and teacher educators, head masters and teachers for welcoming my presence in their college or school, giving me an insight into their work and providing access to facilities;
- the participants of the learning events in Bhutan and the participants of the feedback meeting in Switzerland for critically reflecting my (preliminary) results and providing me with crucial additional information and feedbacks.

The cooperation with all these people has enabled me to get an in-depth insight into the Bhutanese education system that has taken an extraordinary development in the past decades, to which the support by the Swiss partners has contributed considerably. These developments would not have happened without the high commitment and engagement of everybody involved.

I would like to wish those continuing working in basic education in Bhutan all my best, a lot of persistence but also patience, because reforming education always involves changes in culture and that's a challenging long-term endeavour.

Executive summary

The Swiss Agency for Development and Cooperation (SDC) and Helvetas have assisted the Royal Government of Bhutan (RGoB) in developing basic education and teacher education for the last 20 years (1989-2008). The support consisted of **five projects**: the Primary Education Programme (PEP, 1989-1998), the Second Education Project (SEP, 1999-2003), the Support for Teacher Education Programme (STEP, 2004-2008) and two construction projects (1993-2009). PEP and SEP were common projects of SDC/Helvetas, the World Bank and the RGoB and included the Partnership in Teacher Training (PITT, 1989-2003). Major **areas of assistance** were teaching and learning in teacher education, accessibility to teacher education and basic education (through provision of necessary infrastructure), teaching and learning in schools and capacity strengthening of the education administration. Thus, the engagement covered both construction projects as well as pedagogical programmes with a total budget of CHF 26.6 Mio during the last 15 years.

The **impact assessment (IA)** of SDC/Helvetas' long-term investment in basic education in Bhutan **aims** at establishing evidence on the effects of the projects (1) on pupils in primary and secondary schools, (2) on teacher education and training and (3) on the national education sector and system (accountability). The IA should also extract lessons learnt for future steering and design of new projects (organisational learning). To achieve these objectives, the IA analysed general developments in the areas targeted by the Swiss projects for the period of 1993-2008 and tried to capture the contribution of the SDC/Helvetas projects on the developments observed. This was done by combining quantitative methods (analysis of data from education statistics, compile data from previously conducted surveys) and qualitative methods (analysis of project documents, evaluation reports, sector studies as well as interviews, group discussions, and school visits).

The IA has identified the following effects of SDC/Helvetas basic education projects **for pupils and graduates of primary and secondary schools**:

- **Accessibility and availability** of basic education has been enhanced. PEP and SEP have provided school facilities for more than every 5th of the 84'861 students additionally enrolled in basic education between 1989 and 2003 (+ 137 percent total enrolment). The needs of girls and disadvantaged children have been addressed over proportionate. As a result, Bhutan is on track reaching MDG 2 and MDG 3. In addition, SDC/Helvetas projects have much contributed to the general improvement of school buildings and hence to providing environments for pupils in Bhutan that are conducive to learning.
- The **quality** of basic education has been improved. SDC/Helvetas projects have supported the competence development of a much increasing amount of teachers (see below). In addition, the Swiss projects have contributed to the development and distribution of student centred teaching and learning approaches such as multi-grade teaching, teaching skills approach, continuous assessment or ICT literacy. Human resource development (HRD) and international academic cooperation supported by the Swiss projects have considerably impacted the quality of curricula as well as the availability of high quality teaching and learning material in schools. Moreover, the SEP-component "Supplementary Reading Programme" has led to a high increase of reading materials available in schools in terms of quantity and quality. All these contributions of SDC/Helvetas have considerably impacted the capabilities of schools to enhance teaching and learning, improve abilities and skills of students, develop positive learning attitudes and provide an attractive learning and working environment. However, the optimal involvement of these capabilities is hampered by several factors mostly related to scarce resources in terms of sufficient staff, school space and material.

- The **practical vocational relevance of secondary education** in Bhutan was and still is low. In the frame of SEP, 9 Vocational Centres (in regular secondary schools) were established where participants acquired a set of basic vocational skills and where the respect of all students of the schools for blue-collar vocations significantly improved. Although the pilot Vocational Clubs were successful and have thus been further expanded by the MoE, the contribution to vocational skills development of graduates and to the overall vocational relevance of secondary education may be assessed as rather small. SEP and STEP also contributed to strengthening career counselling in teacher education and thus enhanced the competences of many teachers in counselling. About the effects, however, little is known.

The IA has identified the following effects of SDC/Helvetas basic education projects **on teacher education and training**:

- The **teaching capacities at primary and secondary schools** have been enhanced. The number of teachers in Bhutan almost tripled in the past 15 years, from 2'084 in 1993 to 5'745 in 2008. Out of the total of around 1'000 studying places currently available in Bhutan, the Swiss projects provided facilities for an estimate of 500 studying places for pre-service and in-service teachers at the CoEs. These enhanced capacities have contributed to increasing the proportion of Bhutanese teachers in basic education and raising the education level of the Bhutanese teaching force. More than 50 percent of Bhutanese teachers currently hold a bachelors degree or more. The new facilities of the CoE Paro that have been constructed with support of the Swiss projects are perceived as very nice, solid, functional, traditional, and at the same time modern. Thus, they provide very conducive working and learning environment. SDC/Helvetas projects also have ensured the long-term optimal use and care of the facilities by developing an operation and maintenance system and training staff for its implementation.
- The **quality of education and learning at the CoEs** has much improved although the number of graduates from pre-service teacher education has increased from a yearly total of 76 in 1993 to more than 400 in 2007. Today's pre-service teachers face higher entry requirements and receive a longer and better education than earlier cohorts. SDC/Helvetas projects have considerably contributed to increasingly well educate the large amount of Bhutanese teachers needed for reaching Quality Education for All by 2015 by providing extensive and very effective fellowship opportunities to (future) teacher educators of the CoEs. Most current teacher educators are very well trained and competent. They are also said to be more self-confident and critical than earlier and thus able to further develop teacher education themselves. In addition, PITT has had a very positive impact on teaching and learning concepts of the CoEs. Curricula and methodology have been modernised and at the same time carefully Bhutanised. As a result, they are widely and intensively used, far beyond teacher education. PITT also has effectively contributed to the HRD of teachers and teacher educators through the many workshops that were conducted at the CoEs and in schools. The library support and new ICT infrastructure for both CoEs provided in the frame of STEP have enabled a further enhancement of teacher education because they facilitate active and independent learning of students, access to up-to-date information for lecturers, teachers and students and today's very important ICT literacy of teachers.
- The **school management and administration at the CoEs** faced huge changes and achieved major improvements. The fellowships finances by the SDC/Helvetas projects have considerably contributed to HRD of management and administrative staff and positively impacted management efficiency and effectiveness. STEP has effectuated the development of a conceptual framework for managing the two CoEs that provides several tools for continuously

improving the quality of processes and services and thus increasing the chance of sustainability of the CoEs' activities.

- The **perception of effects on teacher education and training in Switzerland** are quite consistent. Most Swiss and Bhutanese interviewees have stated that PITT mainly had an effect on those individual Swiss teacher educators that have travelled to Bhutan. They are said to have improved their intercultural awareness and their English competences. In addition, some of them tried out new approaches and “took up Bhutan” in their teaching in Switzerland. PITT only slightly influenced individual careers of few Swiss teacher educators involved. The institutional impact on teacher education in Switzerland and new networking opportunities may overall be assessed as rather small, but that was not the objective of PITT. The partnership with Bhutan, however, was visible at the TTC Zurich. In addition, some teacher educator were or have since taken up leading positions and are said to be very supportive to initiatives that foster development cooperation. National or international networking opportunities do not seem to have been facilitated.

The IA has identified the following effects of SDC/Helvetas basic education projects **on the national education sector and system**:

- Most components of the Swiss projects have yielded in an institutionalisation of the results and thus achieved a high **impact on the national education policies and laws**.
- SDC/Helvetas have **allocated a substantial budget** to their projects in basic education in Bhutan. The total contribution was CHF 26.6 Mio. for the 15 years between 1993 and 2008, CHF 12.5 Mio. for HRD and CHF 14.1 Mio. for infrastructure. This covered a share of almost 6 percent of the overall RGoB education budget which accounts for around 10 percent of the overall budget of the RGoB. Hence, SDC/Helvetas belonged to the most important donors to basic education in Bhutan in terms of financial contribution.
- The **perception of donor coordination** is very homogeneous among different interviewees. The RGoB has had the leadership in defining donor activities but worked separately with individual donors according to its needs. Partly a result of this coordination approach was that SDC/Helvetas projects were fully aligned with the national education priorities of Bhutan and the ownership of the projects was clearly with the MoE. Adding the common project approach with IDA and during PEP also with UNICEF, the Swiss projects may be assessed as very innovative, complying with the Paris Declaration that was formulated almost twenty years after the Swiss designed there approach in Bhutan.
- SDC/Helvetas basic education projects also had an effect on the **quality of the education administration**. PEP and SEP have considerably contributed to the enhancement of personnel of education administration on central and local level in terms of quality and quantity through provision fellowships and support to trainings. The Swiss projects also provided some tools that have enhanced education administration. Today, the Bhutanese education administration offers high quality education services at central and regional level, further develops them in a participatory manner and provides them in a decentralised structure. Schools thus feel well supported by the education administration. The advancements, however, could only be achieved thanks to an overall good public sector management in Bhutan.

The **sustainability of the SDC/Helvetas projects' outcomes** can be assessed to be highly likely. Reasons that lead to this assessment are (1) that the Swiss projects did not cover any running costs; (2) that the RGoB is very much committed to further develop basic education; (3) that a critical mass of well trained and qualified people are currently working in basic education; (4) that the

professional capacities of teachers can be continuously improved; (5) that teacher shortage can be addressed; (6) that most new policies, curricula and methodological approaches are successfully implemented into practice and are being further improved and/or expanded. Most interviewees, Bhutanese and Swiss alike, are of the opinion that the cooperation in basic education between Switzerland and Bhutan should continue.

The IA concludes that SDC/Helvetas projects have achieved a substantial impact on the areas targeted, although the contribution was not very big in terms of share but in quality. Thus SDC/Helvetas projects can be assessed as very successful due to several reasons that are, among others: (1) the project design was well embedded in local priorities (alignment), coordinated with other activities in the field (donor coordination) and thoroughly prepared based on broad consultations; (2) the co-financing arrangement between the World Bank and Switzerland was not only innovative but also effective and worked due to stable personal relations, open communication and flexibility of all partners involved; (3) the Bhutanese partners demonstrated on the one hand an extraordinary commitment towards improving education and particularly teacher education and on the other hand good governance of the project and education system as a whole; (4) investing in teacher education has proved to produce not only impacts on pupils but on society as a whole because more and better qualified teachers enhance the availability and attractiveness of education, improve knowledge and skills of future generations and promote cultural and social integration; (5) the long-term approach and the substantial contribution of SDC/Helvetas were crucial to facilitate the cultural change necessary for effective and visible improvements in (teacher) education; (6) the projects much invested in partners and their capacities (rather than in outputs); (7) providing a good mix of software (HRD) *and* hardware (infrastructure) with a flexible approach has facilitated a comprehensive development of teacher education as well as basic education and much contributed to its sustainability. However, with little additional efforts, the contribution of PITT to institutional capacity strengthening in teacher education in Switzerland and thus the long-term effects of the academic cooperation in both countries could have been much enhanced. These lessons learnt may be taken into account for future steering and design of new projects and programmes in basic education and teacher education.



1 Introduction

“It is through the love and affection that our beloved Monarch has for his people that the Bhutanese have attained the level of development that is admirable to all the well wishers of Bhutan. Right from the start education has been given a top priority and the pace of development has been led well through this indispensable element of human quality. We have however a long way to go before we can enjoy the status of a developed nation.” (Dorji, 2005, p. 184)

1.1 Background and SDC/Helvetas projects

Bhutan is a small country of 38'394 square kilometres and a current population of 629'700 (NSB Bhutan, 2007a, p. 20). Sandwiched between India and China, the country is completely landlocked with rugged mountainous terrain rising steeply from 100 metres in the south to over 7'000 metres in the north. Because of its geophysical and political situation, Bhutan remained isolated from the rest of the world until the middle of the last century. It was only in the early 1960s that **Bhutan chose to break its isolation** and make contacts with the outside world. It embarked on the path of modernisation with the launch of its First Five-Year Development Plan (FYP) in 1960 (MoHE Bhutan, 2001).

Ever since, one of the overarching **priorities** for development is the **establishment of modern education services** in Bhutan. At the beginning of this endeavour in 1960, there were only 11 non-monastic schools with around 400 students in all of Bhutan. And providing basic education in a country in which the population is widely scattered, a substantial share of it is younger than 15 years (a third of the population, see NSB Bhutan, 2007, p. 22) and people speak around 24 different languages¹ or dialects (see Gordon, 2005) is an immense venture.

¹ According to Gordon (2005), the most widespread languages in Bhutan are Dzongkha (the national language also learned in school with around 130'000 mother tongue speakers in central/western Bhutan), Sharchopkha/Tshangla (around 140'000 mother tongue speakers in eastern Bhutan) and Lhotshamkha/Nepali (around 155'000 mother tongue speakers in southern Bhutan).

Nevertheless, by 1987, before the Swiss support to the Royal Government of Bhutan (RGoB) in basic education started, expansion of education has already gone a good way. 57'000 pupils have been enrolled in 190 schools, what made a Gross Primary Enrolment Ratio (GPER) of 54 percent (World Bank, 1998). However, challenges remained manifold such as the lack of Bhutanese teachers (many teachers have been recruited in India), the insufficient capacities for teacher education or the widely practices approach of rote learning in schools.

Against this background, the **assistance of the Swiss Agency for Development and Cooperation (SDC) and Helvetas** to the RGoB in developing teacher education started in 1989. The engagement covered both construction projects as well as pedagogical programmes with a total budget of CHF 26.6 Mio spread over the last 15 years (1993-2008). Major areas of assistance of the Swiss basic education projects were the improvement of teaching and learning in teacher education, enhancement of accessibility to teacher education and basic education (through provision of necessary infrastructure), ameliorating teaching and learning in schools and capacity strengthening of the education administration. A short overview of the projects and their components is given in Table 1, a more detailed one in annex 2.

Table 1 Short overview of SDC/Helvetas basic education projects in Bhutan

Project	Construction in Paro	Construction in Paro and Samtse	
Period	1993-2000	2000-2009	
Period	▪ Infrastructure	▪ Infrastructure	
Project	Primary Education Programme PEP / PITT	Second Education Project SEP / PITT	Support for Teacher Education Programme STEP
Period	(1989)1993-1998 ²	1999-2003	2004-2008
Area of support	<ul style="list-style-type: none"> ▪ Infrastructure ▪ Teacher education ▪ Education Administration 	<ul style="list-style-type: none"> ▪ Infrastructure ▪ Teacher education ▪ Teaching and learning in schools ▪ Education Administration 	<ul style="list-style-type: none"> ▪ Teacher education
Contribution	CHF 7'095'700	CHF 9'735'800	CHF 9'777'100

The projects in the basic education sector of Bhutan have been a long-term investment of SDC/Helvetas. This offers an excellent chance for impact (and outcome) assessment, as the measurement of impact usually requires quite a long programme period (Schmidt, 2008). There have been several mid-term and phase reviews/evaluations during the last 15 years, but no assessment over the entire programme period so far.

² PEP and PITT started in 1989. The Impact Assessment, however, mainly looks at the period of 1993-2008. Especially budgetary figures are restricted to this period.

1.2 Objectives of the impact assessment

The ultimate purpose of the impact assessment is to capture and analyse the impact of the basic education projects of SDC/Helvetas in Bhutan in order to establish evidence on the effects of the projects (**accountability**) and, to a certain extent, also to extract lessons learnt for future project steering and design of new projects (**organisational learning**).

The main objective of the impact assessment is to establish and analyse the project's **impact on the basic education system and situation in Bhutan**.

According to the Terms of Reference (see annex 1), this includes

- the impact for the pupils and graduates of primary and secondary schools (part A),
 - the impact on the teacher education and training (part B),
 - the impact on the national education sector and system (part C),
- also considering inclusiveness, sustainability, lessons learnt and potential for up-scaling.

The Terms of Reference (ToR) also list indicators that should be assessed by the impact assessment (IA). It may be noted that these **indicators do not cover all areas** to which SDC/Helvetas projects have provided support (due to restricted resources available for the IA). These areas are for example the resource centres established, much of in-service education and training for teachers provided, the improvement of standardised tests, strengthening the capacities of the Bhutan Board of Examinations (BBE), and several aspects related to the support to school administration. Hence, SDC/Helvetas projects may have produced much more impacts than the ones outlined in this IA.

1.3 Methodology

The impact assessment was supposed to be mainly based on **a comparison of the situation** before the beginning of the first project (PEP, (1989)1993-1998) and at the end of the last project (STEP, 2004-2008) including the two constructions projects (1993-2009), trying to **capture the contribution of SDC/Helvetas projects** on the developments observed for this period. However, the specific context, long duration and broad extend of the Swiss projects have led to some **challenges** for the impact assessment:

- neither a baseline study nor a control group was available for an experimental design of the impact assessment;
- the project interventions in different areas addressing different boundary partners with various instruments (construction of buildings, fellowships and trainings in teacher education and for education administration, developments of approaches to teaching and learning in schools) combined with the limited resources available for the impact assessment constrained the application of more sophisticated assessment methods (see e.g. Roche, 1999; Baker, 2000; Bird, 2002; Neubert, 2004; Davies & Dart, 2005; Van Den Berg, 2005);
- the close cooperation between the Swiss and the Bhutanese partners, the cooperation with other donors in the frame of the first two projects and the immense change of context in the last 20 years make it very difficult to attribute certain developments in basic education in Bhutan to the Swiss assistance (attribution gap).

These issues asked for specific attention in designing the methodological approach of the IA that will be outlined below.

1.3.1 Quantitative and qualitative methods

Against the background of the extensive written information available on the projects as well as on the education system in Bhutan and the limited resources for the IA, the IA **combined quantitative methods** (analysis of data from education statistics, compile data from previously conducted surveys) **and qualitative methods** (on the one hand document analysis of project documents, evaluation reports, sector studies and on the other hand interviews, group discussions, and school visits) as follows:

- Based on the written information available (statistics, project documents, reports, studies), general developments over the last 15 years in the 3 relevant areas A, B, and C were extracted, elaborated and presented (document analysis);
- Groups and individuals of different boundary partners (persons from different institutions in different position with different relations to the Swiss projects) identified measures, interventions, or contextual factors that have positively or negatively influenced the developments. They also assessed significance and relevance of factors with a focus on the interventions of the PEP, SEP, STEP and construction projects and its intended and unintended impacts (individual interviews and group discussions);
- Visits to schools and the CoEs in Paro and Samtse enabled contextualisation of the data (school visits);
- Preliminary results were shared and discussed with relevant stakeholders in Bhutan aiming at validating and further interpreting the results and reflecting on the projects' impact and relevance (learning event in Bhutan);
- A draft of this report was shared and discussed with stakeholders from SDC and Helvetas in Switzerland aiming at further validating the results of the IA (feedback meeting in Switzerland).

This approach combined with a careful selection of discussion and interview partners with as much variety of perspectives possible allowed for triangulation and ensured a satisfactory level of reliability and validity of the IA. In addition, it was expected that the impacts of PEP, SEP, STEP and the construction projects (positive and negative, intended and unintended) would be optimally attributed to project interventions and sustainability on different levels assessed.

1.3.2 Sampling and data collection

As stated above, a **careful selection of discussion and interview partners** with as much variety of perspectives possible was crucial to the approach chosen. Criteria for composing the sample were as follows:

- some interviewees should have experiences with the SDC/Helvetas education projects in Bhutan at different stages (PEP, SEP, STEP, construction projects), in different institutions (MoE, RUB, CoEs, TTC Zurich, Donors) and positions (leading, staff, consultants);
- some interviewees should have a long standing and broad knowledge of basic education in Bhutan in general;
- some interviewees should belong to the (intermediate) target groups of the projects (stakeholders in CoEs and schools);
- the total of interviewees should represent the highest possible variation in perspectives on the projects and education in Bhutan.

If possible, interviews were conducted face-to-face. Where this was not feasible, a telephone interview was arranged for. Some potential interview partners did not respond to the request for an interview or were not available during the period the IA was conducted. Nevertheless, the final sample of resource persons and target groups included into the IA (see annex 4) should represent the needed broad range of perspectives to achieve a sufficient level of reliability and validity of the IA.

The **written information and statistical data** about education in Bhutan and the Swiss projects (project documents, reports, studies, and statistics) were assembled in different ways. (1) Helvetas Zurich has provided the documents available in their archives; (2) Local boundary partners shared documents available at their institution; (3) A local consultant supported the IA in collecting statistical data and relevant reports and studies. The full list of documents analysed for this IA is provided in annex 3. Collection of written information, however, posed quite some challenges to the IA. Most documents about PEP (all of them more than ten years old) could not be traced. And it was rather a coincidence that a final report of PEP by the World Bank was found at the MoE on the last day of data collection in Bhutan. In addition, a change of the local consultant at short notice just before the data collection in Bhutan started resulted in a delay of data delivery. Most data and documents could thus only be provided at the end or even after the consultant's mission and some could not be traced anymore.

1.4 Organisation of the report

The report is generally **structured** along the impact areas suggested in the ToR (see annex 1 and overview of content on page i).

- Impact for pupils and graduates of primary and secondary schools (chapter 2),
- Impact on teacher education and training (chapter 3),
- Impact on national education sector and system (chapter 4),

Every chapter starts outlining general developments in the area under consideration (that is: presents data on the indicators stated in the ToR) and then analyses the contributions and impacts that could be attributed to SDC/Helvetas' projects. This concept, however, was not applied to chapter 3.5 "Perception of effects on teacher education and training in Switzerland" and chapter 4 "Impact on national education sector and system" where the indicators suggested a direct presentation of the Swiss project's impact.

Three of the **indicators** outlined in the ToR had to be **adapted**:

- The indicator "Perception of selected stakeholders of ownership for project strategy and activities" is tackled in chapter 4.2 instead of chapter 4.3;
- The indicator "Perception of selected stakeholders of improvement of education quality" (chapter 4.3) was too broad and rather redundant to other indicators in the impact areas A and B (chapters 2 and 3) and thus not outlined separately.
- Indicators on "Attractiveness of teaching profession" were not tackled because
 - 1) the first indicator "Number and rate of graduates of CoEs working as teachers" did not apply to the Bhutanese education system. All graduates from CoEs are supposed to take up teaching by law. And only a small proportion of teachers leave the teaching profession and if they do they do it mostly to follow a career in the Bhutanese education sys-

tem. E.g. in 2006, only 30 teachers quit teaching what is a rate of around 0.6 percent (CERD, 2007, p. 12).³

- 2) the impacts of the Swiss projects on the second indicator “Perception of attractiveness of teacher profession” were too complex to be assessed due to the multifactorial nature of the indicator⁴. However, several issues related to the attractiveness of teaching profession in Bhutan are outlined in chapter 2 and 3.
- 3) salary lists are not available to the public in Bhutan.

To **facilitate reading** the report, several contents are illustrated with figures and tables. The key issue of each paragraph is printed in bold and every chapter (except for “Conclusions and recommendations”) is summarised using a box.

Boxes:

- At the end of each chapter (except chapters 5.1 to 5.4), core statements of the chapter are summarised in a box called “In short”.

³ Looking at the teacher attrition rates in the so called developed countries, over the 40 years or so for which data are available, attrition rates have consistently varied in the range of 7-10 percent per annum for women, whereas the comparable figures for men have systematically increased from just over 2 percent to around 7 or 8 percent in the new century (Dolton, Tremayne & Chung, 2003). Hence, an attrition rate of 0.6 percent is very low.

⁴ The concept of “attractiveness of teaching profession” depends on numerous factors with no clear interdependence. From a theoretical perspective, these factors are roughly image and status of teaching, competitive salary, employment conditions (OECD, 2004b), whereas these factors are composed and complemented by several other factors (OECD, 2004a, p. 4): salaries; formal career structure; working conditions (e.g. class size, teaching load, school leadership, availability of support staff, quality of facilities and instructional materials, safety); professionalism of teaching (e.g. certification standards, professional autonomy, opportunities for collaboration and participation in decision-making, opportunities for professional development); flexibility of the job (e.g. leave benefits, part-time options, flexibility of schedule); job security; the structure of initial teacher education and the requirements to obtain a teaching qualification; job satisfaction from working with students and seeing them develop.



2 Impact for pupils and graduates of primary and secondary schools

The impact assessment (IA) has looked at the impact of SDC/Helvetas projects for pupils and graduates of primary and secondary schools in three areas: (1) the impact on accessibility and availability of primary and secondary education, presented in paragraph 2.1; (2) the impact on quality of education, presented in paragraph 2.2; (2) the impact on practical vocational relevance of secondary education, presented in paragraph 2.3.

2.1 Accessibility and availability of primary and secondary education

“Where other countries took centuries in terms of educational development and coverage, Bhutan achieved significant progress within 40 years. This was possible mainly due to clear policy, political commitment, and technical and professional support given by the Royal Government of Bhutan (RGoB) toward education on top priority basis in the successive plan periods.” (Zangpo, 2002, p. 20)

2.1.1 General developments

The accessibility and availability of basic education in Bhutan has highly increased during the last 15 years.

One important development has been the **extension of basic education in terms of duration**. Until 1985, the basic level of education was placed at class V. This was then raised to class VI and in 1997 to class VIII. In January 2002, the RGoB decided to set the level of basic education at class X (Dorji, 2005, p. 28).

In terms of absolute numbers, the **enrolment in basic education (classes PP-X) has grown** from a total of 62'094 pupils in 1993 to 146'955 pupils in 2008. That's an increase of 137 percent, whereas the growth of enrolment in primary schools (classes PP-VI) counts for 87 percent and the one in lower and middle secondary schools for 668 percent. The augmentation in enrolment in higher secondary schools from 419 students in 1993 to 10'157 students in 2008 means 2'324 percent more students. An overview of these increases in absolute numbers of pupils in schools is given in Figure 1.

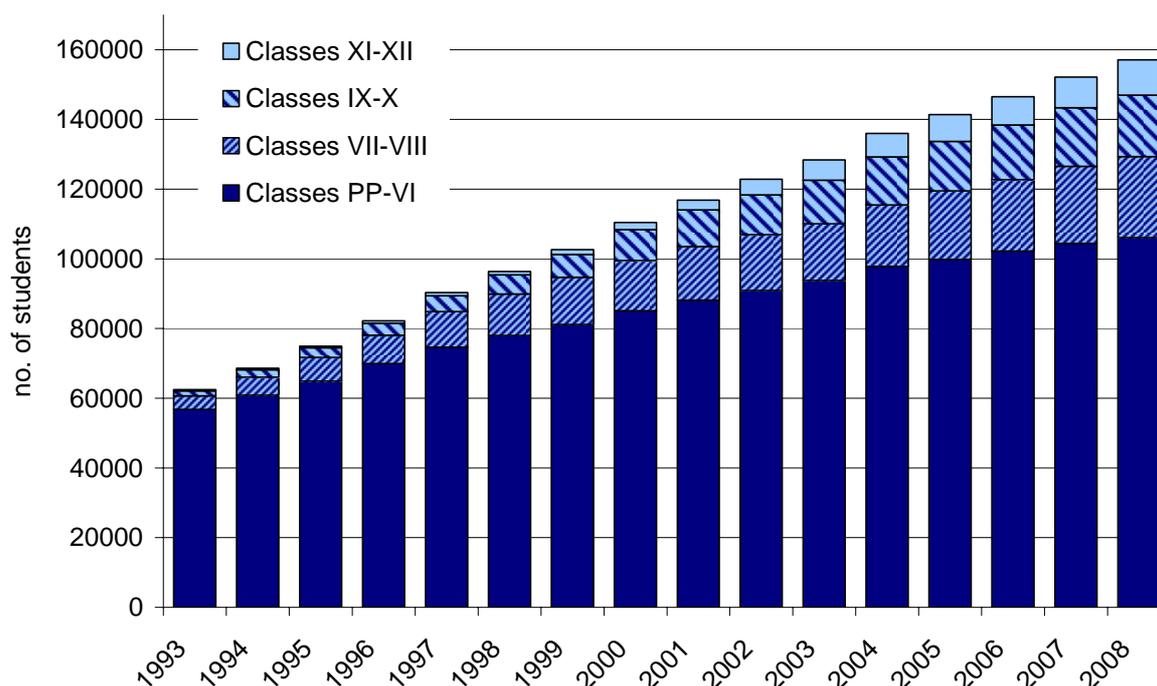


Figure 1 Number of students enrolled in primary and secondary schools, disaggregated by level of school (classes PP-VI, VII-VIII, IX-X, XI-XII), 1993-2008

In terms of relative numbers, the observed increase in enrolment means an augmentation of the Gross Primary Enrolment Ratio (GPER)⁵ from 55 percent in 1990 to 71.9 percent in 1998 and 105.7 percent in 2007 and of the Net Primary Enrolment Ratio (NPER)⁶ from 52.9 percent in 1998 to 83.7 percent in 2007 and 88 percent in 2008⁷. The proportion of pupils starting class I who reach class V has augmented from 73 percent in 1991 to 92.4 percent in 2007 and those reaching class VII from 35 percent in 1990 to 85.4 percent in 2007 (Black & Stalker, 2006, p. 43; GNH Commission & UN, 2008, p. 40). As a result, Bhutan is on track in reaching the Millennium Development Goal (MDG) 2⁸ by 2015 (see Table 2).

⁵ GPER is defined as the total enrolment in primary education, regardless of age, expressed as a percentage of the eligible official primary-age population in a given school year (UNESCO-UIS, w.y., p. 9).

⁶ NPER is defined as the enrolment of the official age-group in primary education expressed as a percentage of the corresponding population (UNESCO-UIS, w.y., p. 10).

⁷ This proportion may even be larger because the official figure does neither include pupils enrolled in monastic education nor those students that study in India (what seems to be widespread in locations close to the Indian border).

⁸ All children, boys and girls alike, will be able to complete a full course of primary schooling.

Table 2 Data for indicators related to MDG 2⁹

Indicator	1990*/1991°	1998	2007	2008
GP ER	55 %*	71.9 %	105.7 %	112 %
NPER	n.n.	52.9 %	83.7 %	88 %
Proportion of pupils starting class I who reach class V	73 %°	n.n.	92.4 %	
Proportion of pupils starting class I who reach class VII	35 %*	n.n.	85.4 %	

To achieve this large increase of enrolment, many **schools had to be newly constructed or existing ones extended**. Accordingly, the number of education institutions has grown continuously in the last decades, from around 200 in 1989 to 520 in 2008 (Ezechieli, 2003, p. 27; MoE Bhutan, 2008). Most schools are located in semi-remote, remote or very remote places and the number of these schools has increased more in the last years to better reach disadvantaged groups of children (see Table 3).

Table 3 Number of schools and their location, disaggregated by school level, 2004 and 2008¹⁰ (Source: MoE)

Category of school	2004					2008 ¹¹				
	PS	LSS	MSS	HSS	Total	PS	LSS	MSS	HSS	Total
Urban	15	23	18	12	68	27	28	20	27	102
Semi-urban	54	24	10	4	92	37	19	116	5	77
Semi-remote	76	17	1	0	94	94	30	5	0	129
Remote	147	13	0	0	160	112	10	3	0	125
Very remote						82	5	0	0	87
Private schools			19		19	13	3		8	24
Total	292	77	29	16	433	365	95	44	40	544

Out of 544 primary and secondary schools in 2008, only 24 were private schools. The ones at primary and lower secondary level are said to be mostly for the Bhutanese elites whereas the private higher secondary schools are meant for those students that do not pass class X examinations in public schools. As of 2000, the MoE has even encouraged private schools to be opened because it was noticed that students who could not get their higher secondary education in government institutes were invariably attending high schools outside Bhutan at the expense of their parents. It was to help such students and to encourage private entrepreneurs to invest in education that private schools at the higher secondary level were welcomed to open private schools for the first time in Bhutan (Dorji, 2005, p. 62).

⁹ Data on enrolment ratio in Bhutan have only been systematically collected since 2003.

¹⁰ Corresponding data for years previous to 2004 not available.

¹¹ New categorisation of schools. E.g. a semi-urban school is a school that has access to a road, electricity and telephone connection.

Even though the efforts to reach **disadvantaged and vulnerable groups of students** were very high and substantial improvements have been achieved, some groups of children still have to stay behind. This is very much the case for **children from poor families**. Across almost all Dzongkhags¹², NPER figures for the poor are much lower than for the non-poor. At the national level this comprises a huge difference of more than seventeen percentage points between the poor with a NPER of 70.9 percent and non-poor with a NPER of 87.2 percent in 2007 (NSB Bhutan, 2007b). Another group of children whose access to education is hampered are those in certain **southern Dzongkhags** (see Table 4). “Most serious enrolment problems are in the south, where a number of schools were closed following security problems in 1989-90. A few are still closed, although most have gradually re-opened.” (Black et al., 2006, p. 44) Figure 2 shows a map of Bhutan with those Dzongkhags underlined red that have a NPER lower than 80 percent and those ones underlined green that have a NPER higher than 90 percent.

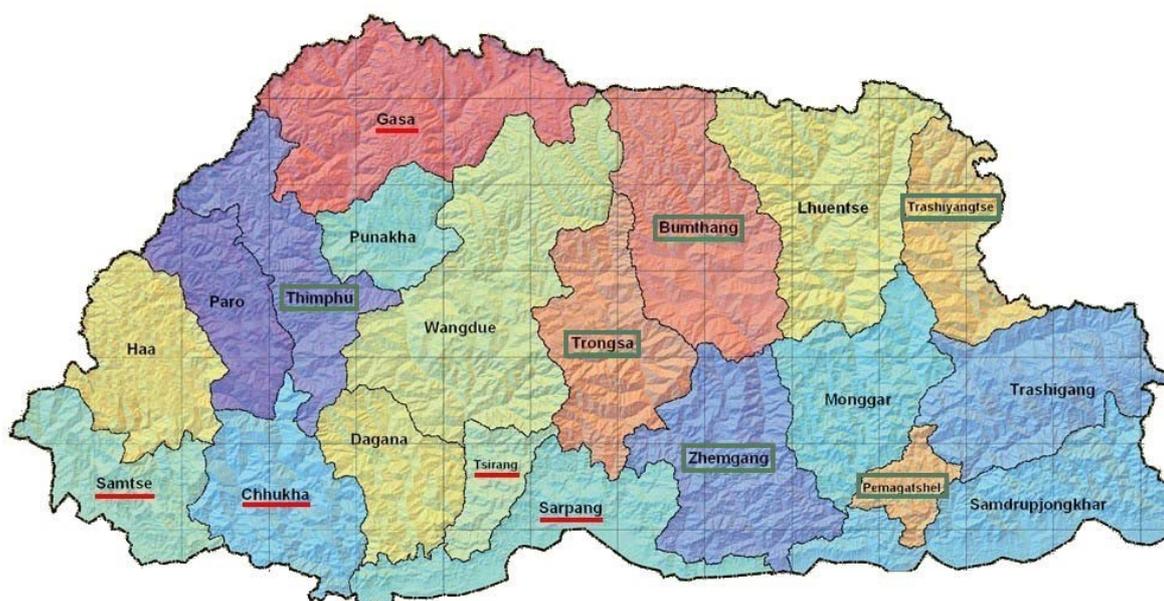


Figure 2 Map visualising NPER by Dzongkhag 2007 (underlined in red: NPER < 80 %; enframed in green: NPER > 90 %)

However, the southern Dzongkhags were also those ones where the highest increase in enrolment could be observed during the last ten years. Table 4 lists the Gross and Net Primary Enrolment Ratios (GPER and NPER) in the 20 Dzongkhags of Bhutan. In addition, it contains the Gender Parity Ratios for GPER and NPER for the year 2007 as well as the proportion of increase in enrolment for all students in classes PP-XII and for girls only.

¹² Bhutanese term for “district”

Table 4 *Primary School Enrolment Ratio, Gender Parity Ratio by Dzongkhag 2007 (GNH Commission et al., 2008, p. 41) and differences in enrolment in classes PP-XII between 1997-2007 (General Statistics, 2008 and own calculations)*

Dzongkhag	GPER (%)	GPR for GPER (%)	NPER (%)	GPR for NPER (%)	difference in enrolment	difference in enrolment of girls
Bumthang	105.0	100.8	96.7	102.8	+ 43.4%	+ 50.4%
Chhukha	98.5	95.7	79.3	101.5	+ 86.8%	+ 110.6%
Dagana	119.0	96.4	87.0	102.1	+ 170.0%	+ 183.9%
Gasa	82.3	79.6	60.8	71.1	+ 23.3%	+ 37.4%
Haa	107.5	96.2	87.9	99.7	+ 8.7%	+ 15.4%
Lhuentse	104.0	96.6	82.5	98.0	+ 55.3%	+ 94.6%
Monggar	102.6	95.6	83.4	99.0	+ 49.3%	+ 67.9%
Paro	107.2	98.8	87.0	98.8	+ 39.9%	+ 46.8%
Pemagathsel	118.3	97.7	94.5	100.6	+ 87.7%	+ 109.5%
Punakha	110.1	116.1	89.6	111.9	+ 45.7%	+ 69.8%
Samdrupjongkhar	108.6	93.7	81.3	91.8	+ 14.3%	+ 45.8%
Samtse	96.0	95.1	71.7	100.4	+ 248.0%	+ 267.7%
Sarbang	96.9	97.3	73.1	101.3	+ 197.8%	+ 207.7%
Thimphu	108.6	99.8	92.0	101.7	+ 52.2%	+ 56.8%
Trashigang	104.2	92.9	83.8	92.5	+ 22.0%	+ 46.5%
Trashiyantse	115.7	97.1	90.1	97.0	+ 73.9%	+ 113.2%
Trongsa	119.2	105.9	94.6	103.8	+ 64.5%	+ 65.1%
Tsirang	105.2	99.0	72.2	99.0	+ 274.4%	+ 320.0%
Wandue	105.8	102.9	87.2	100.1	+ 62.2%	+ 73.6%
Zhemgang	118.9	95.7	90.7	99.7	+ 29.8%	+ 64.5%
National	105.7	99.5	83.7	97.6	+ 64.9%	+ 83.0%

Gender parity in primary education is close to be achieved and hence the MDG objective of eliminating gender disparities in education¹³. The Gender Parity Ratio (GPR) for NPER has reached 97.6 percent in 2007 (see Table 4). In some Dzongkhags even more girls than boys are enrolling and girls are also staying longer in primary schools than boys (Black et al., 2006, p. 51). Only when it comes to secondary education, girls fall still somewhat behind (see Figure 3). And reaching children, boys and girls alike e.g. in the Dzongkhag of Gasa, the region in the extreme northwest of the country where many people spend life rearing yaks and sheep at the mountain top during summer and move with the herd towards their settlement in winter, stays a challenge.

The increase in enrolment during the last years has also influenced the **literacy rate** in Bhutan. Although comprehensive literacy data for Bhutan are only available from the Bhutan Living Standard Surveys that are periodically conducted since 2003 (NSB Bhutan, 2003; 2007a), Bhutan's remarkable progress can be inferred from the literacy rate of different age groups. In 2007, the overall literacy rate for the population aged 6 years and above was 55.5 percent. The male literacy rate was 60.0 percent, whereas the female literacy rate was 40.3 percent. In comparison, the literacy rate for the 10-14 years age-group was 87.6 percent, whereas it was only 17.8 percent for the population over age 55 (NSB Bhutan, 2007a, p. 27).

¹³ MDG 3: eliminate gender disparity in primary and secondary education

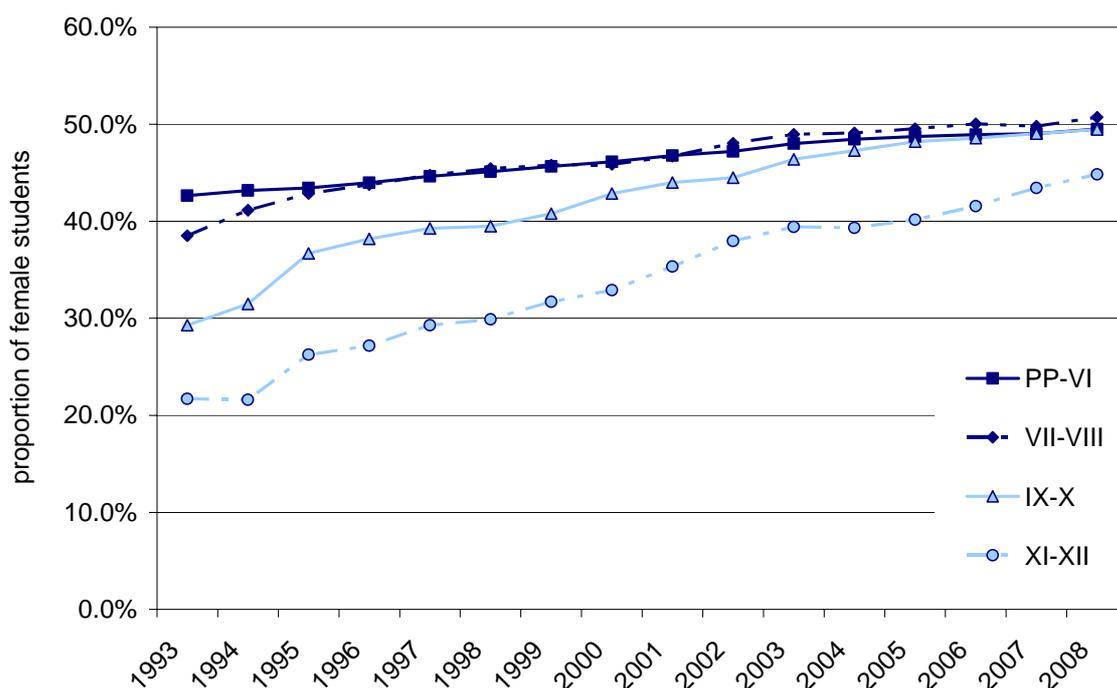


Figure 3 Proportion of female students in classes PP-VI, VII-VIII, IX-X and XI-XII, 1993-2008 (Source: MoE)

Another improvement has been achieved in terms of **lower repetition rates**. Whereas in 1995 more than 14 percent of pupils repeated a class, this rate has decreased to 6 percent in 2008 with most repeaters in classes PP, IV and VII (General Statistics, 2008).

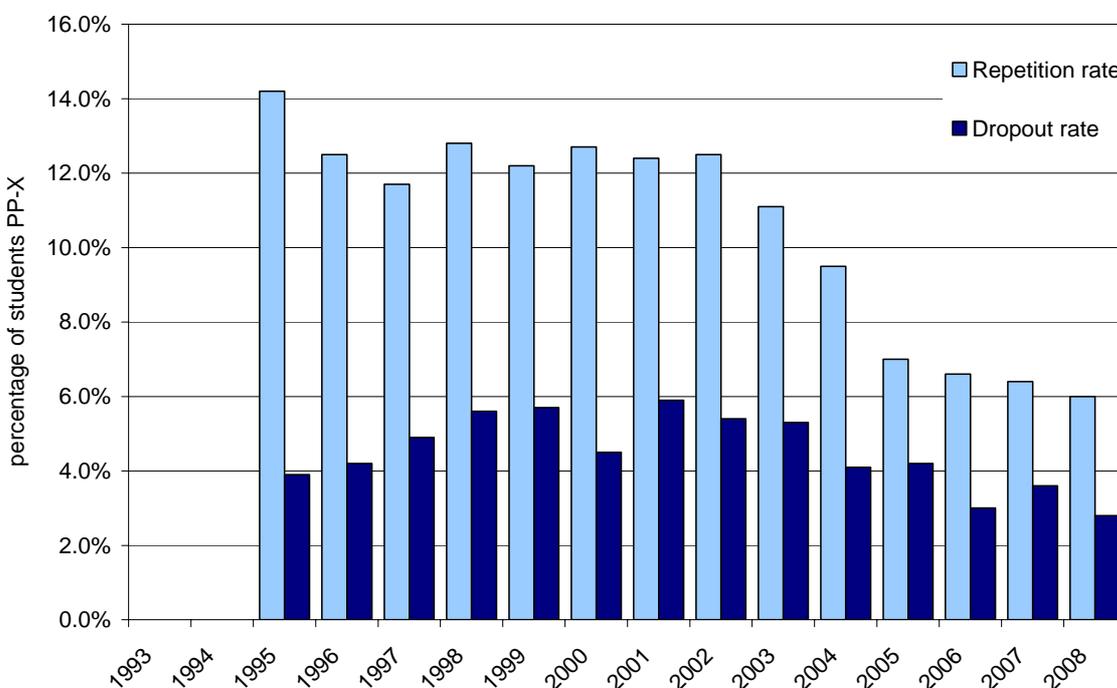


Figure 4 Dropout and repetition rate for classes PP-X, 1993-2008¹⁴

¹⁴ Data for 1993 and 1994 were not available.

The overall **dropout¹⁵ rate** for classes PP-X has fluctuated in previous years between 5.9 percent (2001) and 2.9 percent (2008). Nevertheless, since 2001, the proportion of dropouts is gradually decreasing.¹⁶ Dropout rates are generally higher for secondary education than for primary education. For reasons why pupils leave school before class X, there is no comparative study over the years available. Some recent studies, however, demonstrate current reasons for dropouts. According to the study by the Ministry of Education (2003), “Status of Access to Primary Education of the Girl Child in Bhutan” (cited in UNICEF, 2004), the most widespread reasons for boys to dropout was to join monastic schools. For girls, the most important reason appeared to be that their help was needed at home. For girls and boys an important reason why they dropped out was that “school is too expensive”¹⁷. The study notes that only a marginal gender difference in the dropout rates existed, with slightly higher dropout rates for girls. These results are confirmed by the study of Dorji (2005), where “needed at home” and “school expenses” were found as the most often stated reasons for children not continuing their school career (Dorji & Kinga, 2005, p. 3, 8, 13). Likewise the Bhutan Living Standard Survey (BLSS) states as the three most often mentioned reasons for 6-16 years old children not attending school “too young/old”, “cannot afford” and “needs to work” (NSB Bhutan, 2007a, p. 36f.).

A slightly different but complementing picture about dropouts was demonstrated by the interviewees of the IA from schools. Teachers and head masters mentioned as most important reason for dropouts the sometimes huge difficulties of pupils in getting to school. Some children walk three hours or more to reach school. According to the BLSS 2007, 15.7 percent of children have to walk more than an hour to school, in rural areas almost every fourth child (22.1 percent) walks more than an hour (NSB Bhutan, 2007a, p. 30), some even more than three hours. And a long distance to school demonstrable reduces the school performance (BBE, 2004). In addition, some parents do not have the money to pay for additional costs that arise if their children have to stay with another family in those cases where schools do not offer boarding facilities.

In short:

- Accessibility and availability of primary and secondary education in Bhutan have highly increased during the last 15 years (1993-2008).
- Basic education was extended from classes PP-VI to classes PP-X.
- Enrolment in basic education (classes PP-X) has increased by a total of 84'861 students between 1993 and 2008 (+ 137 percent), NPER from 52.9 percent in 1998 to 88.0 percent in 2008 and number of schools from around 200 in 1989 to 520 in 2008, whereas the situation for girls and vulnerable groups has improved over proportionate.
- Drop-out and repetition rates are decreasing.
- Bhutan is on track reaching MDG 2 and MDG 3.

¹⁵ “Dropouts” are defined as those students who were once enrolled but have left schools before completing basic education (class X) or did not pass the examination after class X.

¹⁶ From 2006 onwards the Class X school leavers who do not continue onto class XI are no longer defined as drop-outs therefore the drop-out rate is lower after 2005 (see MoE Bhutan, 2008, p. 24)

¹⁷ The 11 years of basic education from class PP to X are free. Textbooks, sports items, meals and boarding facilities, where required, are provided by the government. The Government also provides free stationery to its rural schools. However, a nominal admission fee of Nu. 5 is charged for every child enrolling at PP. Students are also required to contribute towards a school development fund at the rate of Nu. 30 per annum for primary schools, Nu. 100 for lower secondary schools and Nu. 200 for middle and higher secondary schools. And parents have to pay for the school uniform.

2.1.2 Contributions and impact of SDC/Helvetas projects

The huge improvements in access and availability of basic education in Bhutan are generally **attributed to the very high political commitment** of the King and the RGoB. "The increase in enrolment has been attributed to the high priority accorded to the education sector by the government to address critical shortages of human resource in the country. Education is also viewed as one of the basic needs required to achieve Gross National Happiness. ... The growth is also attributed to the increased awareness of the value of education amongst the Bhutanese population. Compared to the difficulties of early years of the education system when children had to be conscripted into the schools, parents now not only demand schools but are willing to contribute much more for the education of their children." (MoHE Bhutan, 2001, p. 5)

The Swiss approach in Bhutan has always been to optimally support local priorities. **SDC/Helvetas' basic education projects were aligned** with the national education strategy and have considerably contributed to the education developments targeted by the RGoB and the results outlined above.

In the frame of PEP and SEP (1989-2003), SDC/Helvetas, together with the World Bank, UNICEF and the RGoB, have **constructed or upgraded 24 primary and lower secondary schools**. These schools are distributed over the whole country and have very much targeted children in rural areas. They are located in the following Dzongkhag and communities:

- Bumthang (Central), in Chhumey
- Chhukha (South), in Chapcha, plus upgradation
- Dagana (South), in Dagana, Drujeygang
- Lhuntse (East), in Tangmachu, Lhuntse
- Monggar (East), in Monggar, plus upgradation
- Paro (West), in Shaba
- Pemagatshel (South), in Nangkhor
- Punakha (West), in Punagom, Shenganan
- Samdrupjongkhar (South), in Bakuli
- Trashigang (East), in Demitse, Yangner, Buna Rangjung, Yangtse
- Trashiyangtse (East), in Duksum
- Trongsa (Central), in Takste
- Tsirang (South), in Dagapela
- Wangdue (West), in Gaselo
- Zhemgang (South), in Bumpethang

These constructions of PEP and SEP provided a total of around 11'000 additional student places and established an improved teaching and learning environment for around 15'000 students in basic education (World Bank, 1998; DoE Bhutan, 2001). Related to the increase in enrolment in basic education (by then from classes PP-VIII) between 1989 and 2003 that counted for a total of around 55'000 students, PEP and SEP have provided **school facilities for more than every 5th of these newly enrolled children**. Of the total of 110'000 students enrolled in basic education in 2003 (classes PP-VIII), 13.6 percent have been provided with improved teaching and learning environments constructed through PEP and SEP.

PEP and SEP have not only contributed to the general quantitative increase in enrolment. By stressing the importance of constructing rural schools that reduced walking time to school for children and providing boarding facilities in most of the schools, it is said that the enrolment of **girls** and of children from **poor families** were promoted and that this may have positively influenced the dropout rates.

In addition, the “Swiss schools” much contributed to the establishment of a **more conducive learning environment**. PEP and SEP not only provided bare buildings but, as one interviewee put it, “complete schools”. They were designed to support learning and hence should promote students’ and teachers’ well-being. So “Swiss schools” included games and sports venues, safe drinking water, sanitation, mostly boarding facilities and were equipped with good quality classroom and hostel furniture, library books, laboratory utensils, and office equipment. Some of the PEP- and SEP-schools “have become ‘show pieces’ insofar as they are solidly build of timber and hand-carved stone, feature decorative traditional Bhutanese painting, blend well into their local surroundings and conform to traditional architectural styles.” (LaPrairie, 2006, p. 7) The solid and high quality construction was said to contribute much to the currently still very good maintenance status of the infrastructure. Although PEP- and SEP-schools are quite well known in Bhutan, only few people attribute them to the Swiss support. They are much perceived as “World Bank schools” because, as one interviewee outlined, “The World Bank wanted to flag everything like the cars and the buildings although they had only given a loan to the RGoB”.

The contribution of SDC/Helvetas projects to school buildings was, however, not limited to the two dozen schools constructed or upgraded. With PEP and SEP the **general provision of quality school infrastructure by the RGoB** was enhanced. First, this was achieved by carefully developing school building concepts that later could serve as **standard design of Bhutanese schools**. In a participatory process in which traditional buildings in Bhutan were studied and these concepts combined with criteria for modern, educationally conducive and sustainable schools, such a standard design was developed. It included the design of schools, hostels, teachers’ quarters and the school ground, was modular conceptualised and contained components for tropical and temperate regions in Bhutan. Interviewees described these schools as follows: “they are very traditional as well as modern”; “people feel very much at home and are at the same time very proud”; “classrooms are much bigger, brighter and better ventilated”. Ever since, all Bhutanese schools are constructed according to the standard design for school buildings introduced in the frame of PEP. Only in recent years, some wooden components of the standard design are replaced by steel because the construction process gets quicker.

Second, substantial **capacity strengthening for school planning and construction** was provided through PEP and SEP. HRD of Bhutanese engineers and staff in the education administration was fostered and thus much contributed to a sustainable improvement of school planning and construction in Bhutan. The Swiss are said to be the ones that stressed the importance of using as much local material as possible and taking into consideration safety issues in planning school buildings – two concepts that “have influenced our psyche” as one interviewee puts it. In addition, and very important, the “School Planning and Building Division” was established as a new department of the MoE, a division that is said to do extraordinary good work up to these days.

In short:

- The huge improvements in access and availability of basic education in Bhutan are generally attributed to the very high political commitment of the RGoB. SDC/Helvetas projects were optimally aligned with the local priorities.
- PEP and SEP have provided school facilities for more than every 5th student newly enrolled in basic education between 1989 and 2003, addressing the needs of girls and disadvantaged children over proportionate.
- SDC/Helvetas projects have much contributed to the general improvement of school buildings and hence conducive learning environments for pupils in Bhutan by supporting the development of a standard design of Bhutanese schools and by strengthening capacities related to school planning and building.

2.2 Quality of education

“Two principles characterize most attempts to define quality in education: the first identifies learners’ cognitive development as the major explicit objective of all education systems. (...) The second emphasizes education’s role in promoting values and attitudes of responsible citizenship and in nurturing creative and emotional development.” (UNESCO, 2004, p. 2)

2.2.1 General developments

Whether the quality of education has **improved or deteriorated** during the last 15 years was a matter of **intense public debates** in Bhutan in the three years previous to this IA. It was widely perceived, that education quality was deficient. “Overcrowded classrooms, scant resources, teacher shortage, lack of good leadership in schools, poor self esteem, faulty deployment of teachers, deficient teaching strategies and low teacher moral were pointed out as some of the possible causes of decline in education.” (Bhutan Observer, 2008¹⁸) As one consequence of this public debate, several studies were conducted trying to capture the quality of education in Bhutan.

All these studies provide new insights into education but **none was able to capture the major changes**, because there was no previous baseline study available. One measure, however, that is showing a timeline is the **proportion of students passing final exams** in classes VI, VIII, X, and XII providing information on students’ achievements in academic subjects (see Figure 5).

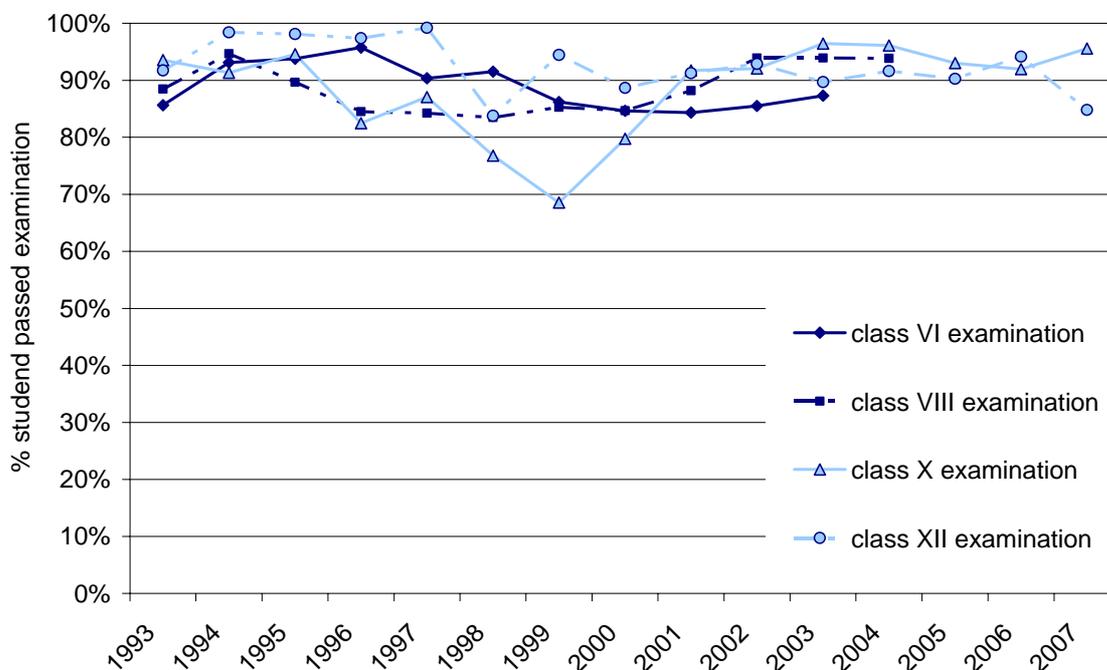


Figure 5 Proportion of students passing final examinations in classes VI, VIII, X, and XII, 1993-2007¹⁹ (General Statistics 2005, 2008)

¹⁸ “Education in decline, researchers say”, article by Dorji Wangchuk

¹⁹ class VI and VIII exams were decentralised in 2003/2004

Except for the year 1996-2000, the proportion of students passing the final examinations in classes VI, VIII, X, and XII was high and relatively stable, although the number and overall proportion of pupils has substantially increased in this period. An increased share of pupils being enrolled generally leads to the fact that more children with lower entrance skills are enrolling in schools. **Improved teaching and learning quality seems to have made up this potential decrease in pupils entrance skills.**

The various recent studies conducted show quite different even sometimes contradicting results, depending on the indicators they chose for measuring quality, the benchmarks they set or the methodology they applied. And most studies focused on learners' cognitive developments (performance in languages, mathematics or science) without taking into consideration other important functions of the education system such as promoting of values and attitudes or learners' emotional development.

Hence, in most areas that have been researched only the **current status of education quality** in Bhutan can be described. And the status is supposed to be as follows:

- The **academic achievements** of Bhutanese students are assessed by a recent study of the REC (iDiscovery Education & REC, 2009) and the Education Sector Review Commission (ESRC, 2008)²⁰ as comparably weak, although only the study of REC has a clear benchmark that is the performance of Indian students. A study by the World Bank, however, shows that a considerable increase of knowledge and skills can be observed between classes II and IV (World Bank, 2009). But most Bhutanese teachers are very satisfied (19.6 percent) or satisfied (64.5 percent) with students' academic achievements (CERD, 2007, p. 50).
- Teacher and school characteristics have a bigger effect on learning than **student characteristics**. However, children of literate parents (especially the mother) and from better-off households generally perform better. Looking at **teacher characteristics**, female teachers and teachers who attended school-based in-service programmes (SBIP) positively impact test scores whereas more than 28 years of experience as a teacher has a large and negative impact on English and Maths test scores (World Bank, 2009). Looking at **school characteristics**, urban students outperform students from semi-urban, rural and remote areas, community schools perform least well and the shorter the distance to school for children, the better the performance (BBE, 2004).
- No study is available that addresses the important issue of **multilingualism of Bhutanese students and teachers**. By entering school, most students are confronted with two foreign languages to them. E.g. in the sample of the World Bank study (2009), only 28 percent of students speak one of the languages used in school also at home²¹. However, the study by CERD shows, that almost all teachers could use at least one other language in teaching. Of three languages suggested to respondents, Sharchopkha would be used by 50.4 percent of teachers, Lhotsamkha by 40.0 percent and Mangdip 9.4 percent (CERD, 2007, p. 53). But 34.4 percent of teachers do have students in their class whose home language they cannot speak (ibid., p. 49). The language issue should not be underestimated while assessing the

²⁰ The assessment of ESRC is based on the stated study of the World Bank and the National Education Assessment (NEA) of the year 2003. The latter, however, was not provided for the IA.

²¹ Mother tongue of the sample of 2359 students: 37 % Sharchop, 27 % Dzongkha, 17 % Lhotsamkha, 3 % Bhumthang, 1 % English, and 3 % other languages. Whether the sample of the World Bank study is representative for the mother tongue of the students is not known and was not a criterion for composing the sample. The data presented by Gordon (2005, see also footnote on page 1) do show another language pattern.

academic achievements of students because all learning is language learning. Thus, overall academic achievements may be higher than suggested by the studies stated.

- The level of commitment or **motivation of teachers** or “moral” as it is put in some reports is discussed extremely controversial (and emotional) in Bhutan. It’s measurement also much depends on the theoretical concept of “motivation” and thus the indicators used to measure it. Thus, different studies conclude that teachers’ motivational status is in a sorry state in Bhutan or teachers’ motivation and moral is very high. For example Kuenga Dorji (2007) equates “motivational level” with “willing to quit teaching” and states that in his “study of motivational level ... that 28 percent of teachers between the ages of 20-29, meaning 1,597 teachers, were willing to quit teaching. Almost all teachers with Bachelor’s degrees fall in this category.” (Wangchuk, 2008) The study by the World Bank (2009) looked at teacher absenteeism and rate of teacher activities as indicators for teacher motivation and accountability. More than 70 percent of parents said that teachers attend schools regularly and more than 90 percent stated that teachers come to school on time what may be assessed as very good results compared to other developing countries, especially for example to India (Chaudhury et al., 2005). Again another study by the CERD (2007) finds that teachers are very satisfied (42.4 percent) or satisfied (47.5 percent) with their job as a teacher and only 5.7 percent would leave teaching profession at the earliest possible opportunity.
- **Teachers in Bhutan generally feel very well supported** first of all by the school administrator. In the CERD-study (2007) teachers stated that they are very satisfied (50.3 percent) or mostly satisfied (38.6 percent) with the support by the school administrator what made “support by school administrator” the most satisfactory issue for the teaching profession in Bhutan. On the second position scored the “peer teacher support” with which 49.2 percent of teachers are very satisfied and 40.8 percent mostly satisfied.
- **Teachers are eager to learn.** Studies and interviews show that teachers would like to participate in more in-service programmes than they are currently able to do. In the study by the CERD (2007), “provide opportunities for training, PD, promotion and incentive” ranks on fourth position as successful motivator for teachers.
- Schools offer **many extracurricular activities** that allow students to engage in other activities than in academic subjects. In addition, these activities can be chosen by students and thus potentially provide space to unfold their various potentials and enhance self-esteem. However, interviewees indicated that some schools may overdo activities what could contribute negatively to teachers’ workload. Furthermore, effectiveness and relevance of extracurricular activities have not been systematically examined so far (see also chapter 2.3).

In addition, statistical data, reports and interviews on education developments identify **the following improvements in education** over the last years:

- The teachers in Bhutan are in average better educated and much more Bhutanese teachers are deployed (for details: see chapter 3).
- **Teachers understand new teaching-learning concepts** such as activity based learning, teaching skills and continuous assessment. Several studies confirm that many teachers have a thorough theoretical knowledge of various teaching, learning and assessment methods (Dürsteler et al., 2001; CERD, 2007; iDiscovery Education et al., 2009). For example about continuous assessment it is said: “The tools themselves and the teachers’ understanding of them are of impressive quality.” (UNICEF, GNHC, Bank & Danida, 2009, p. 9)
- The **syllabus, curricula and quality of textbooks** for primary and secondary education have **considerably improved** during the last years. The “new curriculum materials are well

designed” (iDiscovery Education et al., 2009, p. 32). Interviewees especially mentioned the high quality of the national curriculum framework in English and Mathematics. “Text materials in the new English and Mathematics curriculum show very clear structure of objectives and outcomes and are designed to promote understanding.” (ebd.)

- The **availability of teaching material has much improved**. More and better material is available for teachers in schools. Interviewees from various education institutions and from schools agree that **textbooks** are uniformly distributed to all schools and available everywhere, although they sometimes arrive a bit late. On the other hand, a study finds that only 65.8 percent of student respondents had textbooks, 28.7 percent could share their books with class mates and 5.5 percent had no textbooks available (ESRC, 2008, p. 29). In addition, all interviewees pointed out that the situation of the **school libraries** has improved dramatically due to a yearly financial contribution of the MoE to every school library in Bhutan.
- The introduction of **multi-grade teaching** has contributed to reducing the lack of teachers in Bhutan (Black et al., 2006) and reduced the walking distance to school for many students.
- **Teacher-pupil ratio in basic education has been continuously decreasing** during the last ten years after it much increased in the 1990s (see Figure 6). And the policy of the MoE aims at further reducing the average class size and targets a teacher-pupil ratio of 1:24.

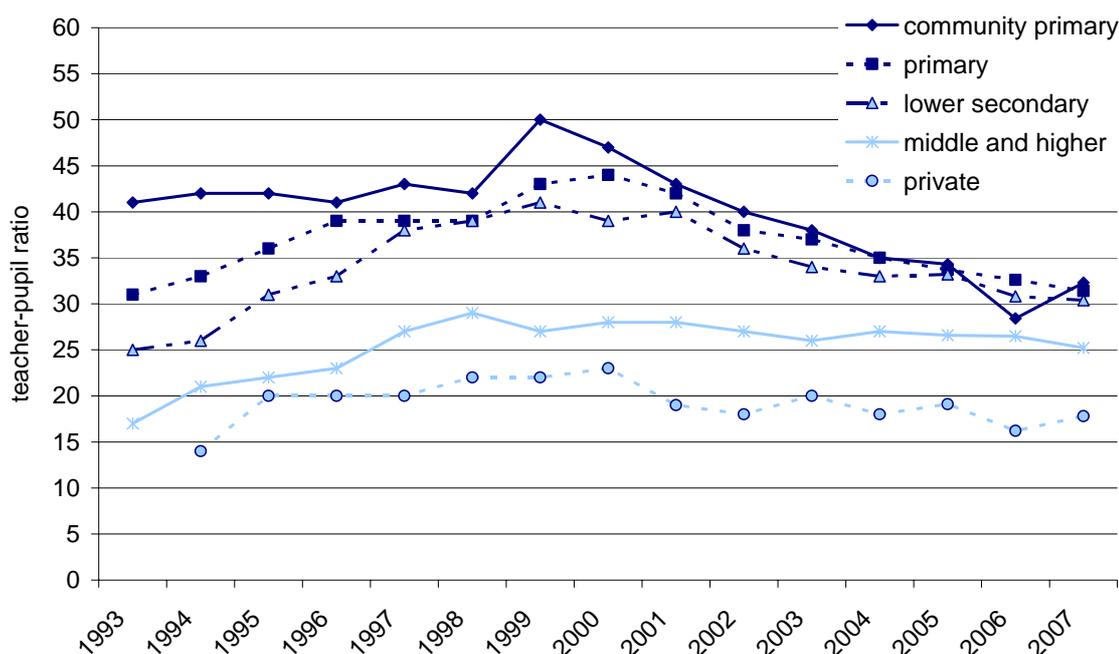


Figure 6 Teacher-Pupil ratios for different school levels, 1993-2008 (Source: MoE)

Statistical data, reports and interviews on education developments also demonstrate clear **obstacles to good quality education**. These are:

- Still many pupils have to walk a **long distance to school** what is evidentially impacting school performance of these pupils negative (see above). In the schools visited, a considerable share of students has to walk more than three hours to get to school.
- The implementation of student centred teaching and learning in schools is much hampered by **small classrooms and big classes**. Although an average teacher-pupil ratio of 1:28 in 2007 may not seem high, it is still quite challenging especially in the light that class size is generally higher than the teacher-pupil ratio and taking into consideration the sometimes

huge differences between schools. For example urban schools in average have a teacher-pupil ratio of 1:26 whereas the ratio for very remote schools is at 1:34. The lowest average teacher-pupil ratio can be found in schools in the Dzongkhag of Gasa with 1:15, in Haa and Punakha 1:22, all in north-west Bhutan, whereas the highest average ratio apply to Dagana with 1:39, Samdrupjongkhar and Samtse with 1:37 and Sarpang and Tsirang with 1:33, all in the south of Bhutan (MoE Bhutan, 2008, p. 32).

- There is a **lack of teaching aids**. Although textbooks, manuals, chalkboards, chalk and well equipped libraries are available at most schools, “teaching-learning materials are restricted to posters, charts and a globe as per observation. Almost all teachers interviewed report the unavailability of resources as a serious constraint to teaching.” (iDiscovery Education et al., 2009, p. 32) Materials such as crayons, water colours, markers and sketch pens seem to be least accessible for teaching in the classroom. In some schools they are not available at all. (Dürsteler et al., 2001) And the **material is uneven distributed** and is said to be much less accessible in remote schools than in urban and semi urban schools what adds to the disadvantage of pupils in rural schools. However, some interviewees also mentioned that some teachers and educationalists seem to have very high expectations about the availability of material. The statement of one interviewee may point out it: “Everything else is missing. We do not have enough paper, cannot make printouts from the internet, cannot photo-copy papers for the whole class, there are no CDs, pictures, tapes etc. Most of the teaching aids are missing.”²² The opinion of the students thus is quite opposite. Only 4.7 percent of students (4.5 percent in rural schools, 5.0 percent in urban schools) are of the opinion that books and supplies available at school are not adequate (NSB Bhutan, 2007a, p. 37).
- The education “system still continued to be **driven by examinations**. Students were required to pass through four public examinations (in classes VI, VIII, X and XII) during the entire period of their school life.” (Dorji, 2005, p. 108f.) Thus, little continuous assessment is taking place, especially in secondary schools. “Examinations and written class and homework is the predominant form of assessment in most classrooms. Other forms of assessment though stated in policy are not observed in practice. ... Assessment data are limited to marks and frequency limited to twice-a-year progress reports. This does not provide meaningful feedback to parents, students and teachers.” (iDiscovery Education et al., 2009, p. 33)
- The work of teachers is laden with many **additional responsibilities**. 37.0 percent of teachers spend 5-10 hours and 7.5 percent even more than 10 hours for co-curricular activities per week. To this adds 5-10 hours of remedial teaching after school for 20.9 percent of teachers (see Table 5).

Table 5 Weekly working hours of teachers besides teaching hours, in % of teachers of a total of 3'769 responding (CERD, 2007)

Activity	0-4 hours	5-10 hours	> 10 hours	no answer
Preparation of teaching	31.9 %		50.5 % ²³	7.5 %
Co-curricular activities	48.2 %	37.0 %	7.5 %	7.4 %
Remedial teaching after school	62.7 %	20.9 %	3.2 %	31.1 %

²² The school has a computer-room with 20 computers and internet access, a laboratory for chemistry, one for biology with instruments, chemicals, etc. available.

²³ 7.5 percent of teachers prepare more than 25 hours weekly.

Over all, **one could summarise** that teaching and learning in Bhutanese primary and secondary schools has potentially much improved but the implementation of quality education is hampered by several factors mostly related to scarce resources in terms of sufficient staff, school space and material. And the situation is more challenging in remote than in urban schools and in some schools in the south.

This somewhat contradicting situation finds its expression in the stated very **controversial discussions about the quality of education in Bhutan**. On the one hand, educationalists and experts from urban education institutions mostly and without putting into perspective stated in the interviews: "The quality of education has gone down." On the other hand, asking teachers from community schools about the perception of parents the answers were uniquely: "People from our community are very happy with our school. There are no complaints, also in terms of quality or discipline." "People are very satisfied with our school." "People are very proud of the school."

In short:

- In recent years, there was a huge public debate about the quality of education.
- Academic achievements of students are assessed as comparably weak without having a clear and/or realistic benchmark and taking into consideration the multilingualism of Bhutanese students. Teachers and schools have an effect on students' achievements whereas urban schools realise better results.
- The teaching force can be assessed as motivated (although some studies arrive at opposite judgments) and eager to learn. Teachers generally feel well supported especially by the school administrator and offer many extra curricular activities to students.
- Clear improvements during the last years can be observed related to the qualification of teachers (see chapter 3) that generally have a thorough theoretical knowledge of new teaching and learning concepts. In addition, the quality of syllabus, curricula and textbooks has considerably improved and the availability of textbooks as well as well equipped school libraries has been enhanced. Since a couple of years, the teacher-pupil ratio is continuously decreasing reaching an average relation of 1:28 in 2007. The policy of the MoE aims at achieving 1:24.
- Several factors, however, still hamper the implementation of high quality teaching and learning. Many students especially in rural areas have to walk several hours to school what is essentially impacting their performance. In addition, classes are still big and thus classrooms often too small. Besides the improved availability of textbooks, teaching aids are rather scarce. And the implementation of certain methods is hampered by the orientation of the education system towards exams and the huge workload of teachers that have to take over many additional responsibilities.
- In sum, teaching and learning in Bhutanese primary and secondary schools has potentially much improved but the implementation of quality education is hampered by several factors mostly related to scarce resources in terms of sufficient staff, school space and material. And the situation is more challenging in remote than in urban schools and in some schools in the south of Bhutan.

2.2.2 Contributions and impact of SDC/Helvetas projects

SDC/Helvetas projects have contributed to the improvements stated above. And the projects have also addressed some of the obstacles to implementing quality teaching and learning in primary and secondary schools in Bhutan.

The most important contribution of the Swiss projects on quality of education was **the competence development of a much increasing amount of teachers** (see also chapter 3). The quite stable proportion of students passing final exams in an environment where intake is increasing a lot and thus presumably more pupils with lower entrance levels have to be educated was only possible thanks to the support of the Swiss projects. They have enhanced teachers' competences through developments in teacher education such as improved teaching practice or the provision of INSET.

SDC/Helvetas projects have also impacted that **new teaching and learning approaches** are quite well known to today's Bhutanese teachers. Multi-grade teaching²⁴ has contributed to a decrease of teacher shortage. In addition, the teaching skills approach, continuous assessment or ICT literacy of teachers – all being assessed as “a direct outcome of the Swiss cooperation” (Interviewee) – bear the potential to enhance students' achievements. In addition, the introduction and spread of SBIP, to which the Swiss have contributed the concept, is not only enhancing the teaching and learning processes but much impacts the motivation and satisfaction of teachers.

The Swiss projects have much impacted the **quality of material available in schools**. First, fellowships were offered in curriculum development and thus contributed to professionalisation of curriculum enhancement. Second, teacher educators trained through Swiss support (see chapter 3) have always been involved in curriculum development processes by the CAPSD. Third, much high quality material now available for teachers in schools was developed in the frame of PITT such as “Integrated Subject Methodology”, “Handbook for Model Lessons”, “Handbook for Teaching Skills and Teaching Practice”, “Idea Folder”, “Enhancing School Guidance and Counselling”, or “A Guide to Continuous Formative Assessment” (see annex 5 for an overview of all material produced). And these materials are generally assessed as of good quality and relevance.

Besides supporting the development of quality material, SDC/Helvetas projects also contributed to the **quantity of material available in schools**. Not only the above mentioned new materials were distributed to schools and some of them are well known by most teachers in Bhutan. The Swiss projects also considerably contributed to the increased availability of reading material in school libraries and thus to the capability of schools to enhance teaching and learning, reading abilities and literacy skills of students and teachers and positive reading attitudes amongst students. Through the so called “Supplementary Reading Programme” implemented in the frame of SEP, a total of 134 community primary schools and 24 junior high schools had been supplied with supplementary reading materials, including, teachers' reference books and furniture. In addition, librarians were trained, a reading strategies booklet was developed and distributed to all schools and a baseline study conducted (Young, 2001). The major impact, however, was achieved because the MoE took up the “Supplementary Reading Programme” as a priority area of attention in Bhutan's education system. The RGoB incorporated a regular contribution to every school's library into its annual budget (see also chapter 4.1). One result of this that was stated by an interviewee: “We have nowadays book fairs in Thimphu several times a year with international participation and that has become like a gala-event for all involved schools.”

²⁴ Other donors such as Canada, Denmark, Australia and UNICEF have also contributed to the developments in multi-grade teaching.

In short:

- SDC/Helvetas projects have contributed to the quality of education in primary and secondary schools by supporting the competence development of a much increasing amount of teachers (see also chapter 3).
- The Swiss projects have contributed to the development of student centred teaching and learning approaches and to the distribution of this knowledge and respective competences among teachers. For example multi-grade teaching, teaching skills approach, continuous assessment or ICT literacy are well developed and teachers' understanding of them are generally of impressive quality.
- HRD and international academic cooperation supported by the Swiss projects have considerably impacted the quality of curricula as well as teaching and learning material available in schools.
- Through the Swiss support, the quantity of material available in schools has improved. Especially successful was the "Supplementary Reading Programme". It has supplied schools with supplementary reading materials, including teachers' reference books and furniture. It also provided training to librarians and teachers with a reading strategies booklet. A broad reach was achieved through the MoE following-up on the component by taking it up as a priority area of attention in Bhutan's education system.
- All these contributions of SDC/Helvetas have considerably impacted the capabilities of schools to enhance teaching and learning, improve abilities and skills of students, develop positive learning attitudes and provide an attractive learning and working environment. However, the optimal evolvment of these capabilities is hampered by several factors mostly related to scarce resources in terms of sufficient staff, school space and material (see also chapter 2.2.1).

2.3 Practical vocational relevance of secondary education

"Despite the progress we have made in the field of education, many of our young people are not equipped with the skills required for productive employment ... and some may have aspirations that may be difficult to fulfil." (Planning Commission Bhutan, 1999, p. 27)

2.3.1 General developments

The pattern of absorption of school leavers and graduates into vocational education and training or into labour market has much changed during the last 15 years.

An important factor that influenced the developments was the **increased amount of school leavers**. Whereas in 1993, 579 students graduated from class X (plus 40 not passing the final exams) and 188 from class XII (plus 17 not passing the final exam), this number has increased to 7573 (plus 351 not passing) and 4263 (plus 764 not passing) students respectively in 2007 (Source: MoE, see Table 6). That is around 13 times more class X graduates and almost 23 times more class XII graduates within 15 years. Most of these school leavers look for a continuation of their career, class X school leavers generally in class XI and class XII school leavers in academic education in Bhutan or abroad. Those entering into vocational education and training are said to be

mostly those students who do not pass the final exam in class X. Some graduates from class X and XII, however, enter the free labour market directly and only a minor share is going back to farming on their parents' farm (see Figure 7).

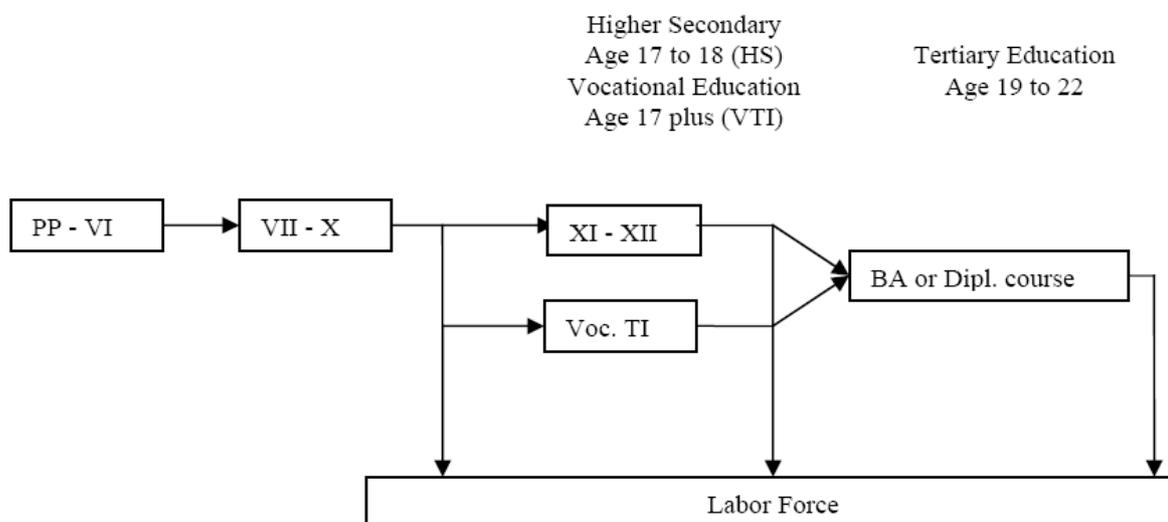


Figure 7 General education structure (MoE Bhutan, 2008, p. 6)

Out of 7924 students leaving class X in 2007, **not even 10 percent**²⁵ continue their education in **VET** in one of the 7 public Bhutanese Vocational Institutes²⁶. On higher secondary education level, only 1'284 students (5.8 percent of all students; 848 male and 436 female) are enrolled in VET schools whereas 20'925 students (94.2 percent of all students; 10'840 male and 10'085 female) are enrolled in higher secondary schools.

This has much contributed to the **increase of youth unemployment in Bhutan**. Whereas in 1998, only 2.7 percent of youth in the age group 20-24 were unemployed, this share raised to 11.4 percent in 2006. In the same period, the overall unemployment rate has only risen from 1.4 to 3.7 percent (RGoB, 2005; GNH Commission, 2007; REC, 2009). This is, however, a paradoxical situation because youth unemployment coexists with labour shortage. Over the last decades Bhutan has been observing healthy growth rates and a growing domestic demand for foreign labour (REC, 2009, p. 13).

Table 6 Data on number of school leavers and youth unemployment in Bhutan, 1993, 1998, 2003, and 2006/2007

Indicator	1993	1998	2003	2006°/2007
School leavers from class X	619	1796	5298	7924
School leavers from class XII	205	444	2997	5027
unemployment for age group 20-24	n.n.	2.7 %	n.n.	11.4 %°
overall unemployment	n.n.	1.4 %	1.7 %	3.7 %

²⁵ This is an estimation based on the number of a total of 1'284 students in VET institutions in 2007.

²⁶ There is no data available on private VET offers in Bhutan.

Hence, the current unemployment trends suggest a growing **disparity of skills and expectations of graduates and the demand of labour market**. Many early school leavers who enter the labour market each year are perceived as unemployable since they lack the skills and/or the levels of functional literacy required. “Technical and vocational skills are hard to find among graduates.” (REC, 2009, p. 27) In a recent study on the quality of school education three employers from Thimphu were asked their perception of graduates’ qualities. Their statements are summarised as follows (iDiscovery Education et al., 2009, p. 26f.):

- Graduates lack the basic analytical skills (cannot propose out-of-box solutions to practical problems) and communication skills required to succeed in entry level professions;
- They are unable to perform simple tasks like totalling a bill or drafting an application letter for employment;
- They show low achievement drive, urge to excel and aspire for better opportunities;
- Many graduates were dependent on finding jobs in the government sector;
- Graduates lack confidence in their own abilities and therefore are unable to take on challenges at the workplace.

If these statements are representative is debatable. First, the evidence is only drawn from a sample of three employers and second, graduates have passed the final exams proofing an agreed on level of (academic) qualification.

It is known that many youth choose to remain economically inactive simply because they believe they do not have the relevant skills to be employed. Unattractive remuneration, lack of incentives and poor working conditions are some of the other probable reasons. This structural predicament has been widely regarded as a major explanation for the present levels of youth unemployment even while jobs are still available (RGoB, 2005, p. 90).

The overall assessment of **secondary education** – from reports and interviews alike – is that it has **insufficient vocational relevance**. There is a strong academic orientation of secondary education in Bhutan (only small VET track available, see above) and “the demands of the labour market are no longer compatible with the traditional academic subjects taught at the secondary level and the methods used for teaching.” (MoHE, 2001, p. 21) To this adds that vocational education and training is an unpopular option for many students due to the low status and poor working conditions associated with blue-collar jobs (MoHE Bhutan, 2001, p. 8) and the generally low appreciation and attraction of blue-collar jobs due to “the absence of perks associated with civil service such as foreign travel, pension schemes as well as job security” (Dorji, 2005, p. 51). In addition, “there is widely held belief among the parents and children that the sole purpose of education is to get ‘white collar’ jobs – the most coveted job is a government job (zhung yop), as it means desk works, job security, assurance and authority.” (Dorji et al., 2005, p. 17) However, donors in Bhutan suggest to “assess the existing programs for relevance and demand. It could be that the vocational/technical institutes need to upgrade to become more of a Polytechnic model or at minimum introduce business and market skills.”(UNICEF et al., 2009, p. 9)

Several years ago, **the RGoB has recognised the problems** connected with underdeveloped vocational education offers in the Bhutanese education system. The Education Sector Strategy that was developed almost 10 years ago states: “The present vocational education system is both inadequate and inefficient.” (MoHE Bhutan, 2001, p. 8) During the following 9th FYP, the annual intake capacity of vocational training programmes was enhanced by around 35 percent. In addition to formal training programmes in the VET Institutes, several other alternative modes of training were organised under the Apprenticeship, Village Skills Development and Special Skills Development training programmes. However the annual intake of all training programmes fell below the targeted figure of around 4,800 as only four of the thirteen new vocational institutes proposed could

be established due to a lack of resources. In addition to enhancing access, significant efforts were also directed at improving the quality of vocational training through the adoption and implementation of a VET policy, the establishment of a Vocational Training and Skills Development Division and the development of the Bhutan Vocational Qualifications Framework. (GNH Commission, 2008, p. 11) A major challenge was and still is the coordination and cooperation of the basic and academic education sector with the vocational education sector because different Ministries are responsible for each. In earlier years the National Technical Training Authority (NTTA) that was directly subordinated to the Planning Commission and today the Vocational Training and Skills Development Division of the Ministry of Labour and Human Resources (MoLHR) are responsible for vocational education and training (VET). These institutional structures still put some restrictions on an optimal coordination.

To enhance the vocational orientation of the academic oriented secondary schools, the MoE institutionalised two elements (MoHE Bhutan, 2001, p. 8), both being areas of youth guidance and counselling:

- Career guidance and counselling (familiarise students on career opportunities through provision of resource materials, training of focal teachers and establishment of career resource corners in schools);
- School-based vocational training (introduction of some basic skills elements through according extra curricular activities).

The general concepts of **youth guidance and counselling (YGC) have considerably developed** in the last years. In 1996, the Youth Guidance and Counselling Section (YGCS) in the MoE was established as first administrative structure for the issue. It was upgraded to the Youth Guidance and Counselling Division (YGCD) in 2000. Considering its responsibilities and the mandate, YGCD was further upgraded becoming the Department of Youth and Sports (DYS) under the Ministry of Education in 2003. The administrative upgradation expresses the importance assigned to YGC as well as the offers provided to schools. Today, most secondary schools in Bhutan have at least one teacher that is trained in YGC, they have material that supports their work and every secondary school library should have a career corner²⁷. The implementation of YGC of which one component is career guidance and counselling, however, is said to show a mixed picture. Whereas in some schools it is just perceived “as something that sits in the timetable” (Interviewee), in other schools YGC seems to be practiced seriously and showing results. A systematic evaluation of the activities has thus far not been done.

School-based vocational training (SBVT), however, has in general not yet developed to a success story in enhancing vocational orientation of secondary graduates. A study supported by SEP (Tamang & Rauh, 2003) demonstrates, that Vocational Clubs offered in schools usually lack trained instructors, work rooms and equipment. The main purpose of most Vocational Clubs is thus rather to do minor maintenance work at school furniture, library books etc. Accordingly, these clubs are not very attractive for students and rather confirm the existing prejudices on manual work and blue-collar jobs. In addition – and maybe most important –, students do not acquire qualified vocational skills.

Overall, schools normally offer **quite some extracurricular activities**, including games, sports, arts, culture, counselling, vocational clubs etc. But the offers are not systematised and hence rather offered according to the teachers or head masters preferences. In addition, it has never been looked at them in a systematic manner and in more depth (no study available except as for

²⁷ Printing and distribution of material was supported by Save the Children US.

Vocational Clubs, see below) and several interviewees have formulated doubts about their effectiveness.

The RGoB and the MoE are well aware of these problems. Thus, “in view of the urgency to provide employment for the growing numbers of educated youth entering the labour force, the Royal Government attached a high priority to vocational training” in its 10th FYP (GNH Commission, 2008, p. 11).

In short:

- The enhanced access to secondary education and the increase of graduates from classes X and XII co-occurred with an augmentation in youth unemployment that coexists with labour shortage in Bhutan. Major explanations for this paradoxical situation are a growing disparity of skills and expectations of graduates and the demand of labour market as well as the rather unattractive remuneration and poor working conditions of blue-collar jobs.
- Several years ago, the MoE has recognised that secondary education is not vocationally relevant and that the vocational education offers in the Bhutanese education system are underdeveloped, inadequate and inefficient.
- The planned increase of intake into vocational training programmes during the 9th FYP could not be achieved due to a lack of resources to expand the offers.
- To enhance the vocational orientation of the academic oriented secondary schools, the MoE has strengthened youth guidance and counselling (YGC) including career guidance and counselling and school-based vocational training (SBVT).

2.3.2 Contributions and impact of SDC/Helvetas projects

Although the SDC/Helvetas projects were addressing basic education, the Swiss have supported the MoE in improving its vocational orientation. To enhance school-based vocational training (SBVT), **SEP supported vocational activities through the establishment of 9 pilot Vocational Centres**. In 1999/2000, 9 high school teachers were trained as “vocational teachers” in one of the three vocations carpentry, house wiring, and plumbing. They went back to their secondary schools and founded Vocational Clubs. These schools were then called “Vocational Centres”. By then, the National Technical Training Authority (NTTA) provided a syllabus, tools and material for the Vocational Centres, after 2001 it was YGCD that was responsible for the SBVT.

The Vocational Centres supported by SEP achieved good results (Dorji, Dorji & Dendup, 2001; Tamang et al., 2003). The 9 trained teachers did a qualified and successful job. Implementing an appropriate syllabus designed by NTTA, they managed to **impart a set of basic skills** to the club members, which enabled them to do semi-skilled work in construction and maintenance. The Vocational Clubs **significantly improved the respect of the students of their schools for blue-collar vocations**. All pilot Vocational Clubs were overbooked and had to refuse up to 50 percent of the applicants. This success was surprising, because the vocational teachers had to struggle with a bunch of structural difficulties: excessive work load; lack of suitable training rooms; no club budget; shortage of equipment and materials; club time not sufficient and often sacrificed to school events. In addition, the results much differ from what is usually observed in regular Vocational Clubs. There, students normally are not able to acquire qualified vocational skills, because they lack trained instructors, work rooms and equipment. The main purpose of most of these clubs is to do minor maintenance work, thus are not attractive for students and rather confirm the existing prejudices on manual work.

SEP did not foresee training more than the original 9 vocational teachers²⁸ and due to an overload of the Swiss projects, the pilot component of Vocational Clubs was not expanded in STEP. The **MoE/YGCD, however, followed up on the idea** and later supported weaving, tailoring and book binding clubs. Today, 30 trained vocational teachers offer Vocational Clubs in 39 secondary schools. To make the clubs more interesting and offer more alternatives to students other vocational clubs like hair dressing, photography, art and music are proposed to be introduced in future (source: website DYS).

SDC/Helvetas projects also supported the enhancement of youth guidance and counselling (YGC) in secondary schools. SEP provided fellowships for teacher educators at the CoEs that contributed to the enhancement of teacher education in YGC, including career counselling. In cooperation with the MoE and the CoEs, YGC was thus strengthened in the CoEs. YGC was introduced as optional subject in pre-service teacher education for all B.Ed. and PGCE students.²⁹ About the effectiveness of YGC and career counselling, however, no study has been conducted so far. Interviewees assess the effectiveness as rather weak.

In short:

- Through the 9 Vocational Centres established by SEP club members acquired a set of basic skills. In addition and maybe even more important, the respect of the students of their schools for blue-collar vocations significantly improved.
- Although the component of Vocational Clubs was very successful in the 9 pilot Vocational Centres, showed quite some impact on the beneficiaries, has thus been taken up by the MoE and further expanded, the contribution to vocational skills development of graduates and the overall vocational relevance of secondary education may be assessed as rather small. "Middle and Higher Secondary Schools graduates have little or no practical training."(UNICEF et al., 2009, p. 9)
- SEP and STEP also contributed to strengthening YGC including career counselling in teacher education and thus enhanced the competences of many teachers in counselling. About the effects, however, little is known.

²⁸ Of which two have been transferred by 2003 so that only 7 fully functioning Vocational Centres were left.

²⁹ An optional subject is one of two specialisations that students have to choose from.



3 Impact on teacher education and training

The impact assessment (IA) has looked at the impact of SDC/Helvetas projects on teacher education and training in five areas: (1) the impact on the enhancement of teaching capacities at primary and secondary schools, presented in paragraph 3.1; (2) the impact on the quality of education and learning at the Colleges of Education, presented in paragraph 3.2; (3) the impact on school management and administration at the Colleges of Education, presented in paragraph 3.3; (4) the impact on the attractiveness of teaching profession, presented in paragraph 3.4; (5) the impact on teacher education and training in Switzerland, presented in paragraph 3.5.

3.1 Enhancement of teaching capacities at primary and secondary schools

“From almost a total dependence on expatriate teachers in the 1960s, the Bhutanese education system has progressed dramatically towards self-sufficiency in this area. However, some dependence on expatriate teachers continues especially for the mathematics and science teachers at the secondary levels.” (MoE Bhutan, 2005, p. 21)

3.1.1 General developments

Teaching capacities in primary and secondary education in Bhutan were enhanced to a great extent in the last 15 years.

Whereas in 1993 the teaching force in Bhutan’s public and private primary and secondary schools had a strength of 2’084, the number of teachers almost tripled in the following fifteen years and increased to 5’745 in 2008 (see Figure 8). The increase was especially high for Lower and Middle Secondary Schools (+ 571 percent)³⁰ because basic education was expanded to class X (see chapter 2.1.1).

³⁰ The decrease in number of teachers in primary schools and the increase in secondary schools in the early 2000s is the result of upgradation of many primary to lower secondary schools. As a result many primary school teachers are newly reported as secondary school teachers.

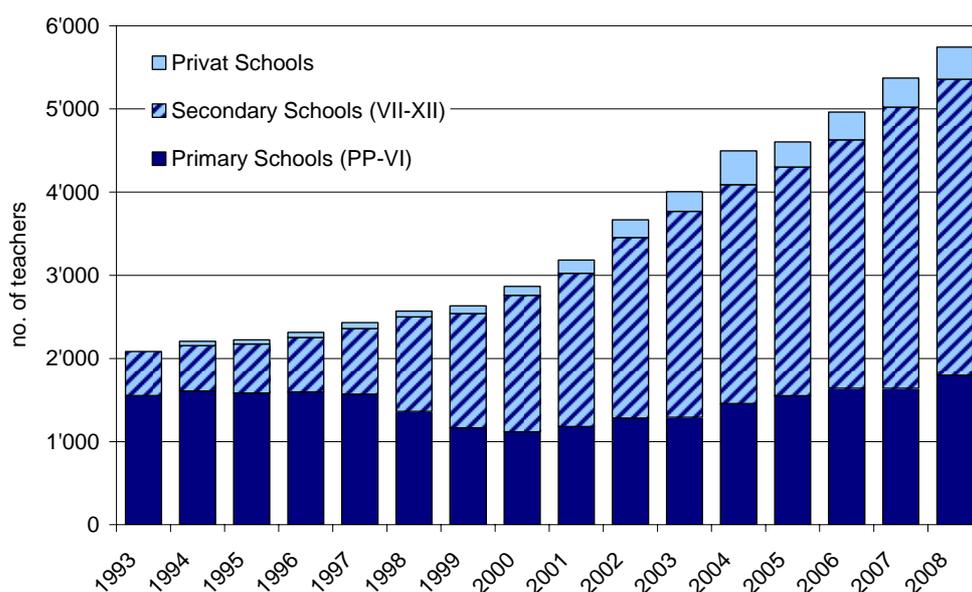


Figure 8 Number of teachers in public and private schools, 1993-2008 (Source: MoE)

Not only the number of teachers increased but also the **proportion of Bhutanese teachers was enhanced**, what is a crucial quality indicator for every national education system. In the beginning of the education expansion in Bhutan, most teachers had to be recruited in India due to a lack of qualified people in Bhutan. And having a majority of teachers from another culture sets the enculturation and socialisation of the next generation into a specific society as the Bhutanese one at risk. Especially in primary education, the enculturation factor plays a crucial role.

The proportion of Bhutanese teachers in primary education increased from 76 percent in 1993 to 99 percent in 2008 and the one in secondary education from 56 percent to 85 percent (see Figure 9).

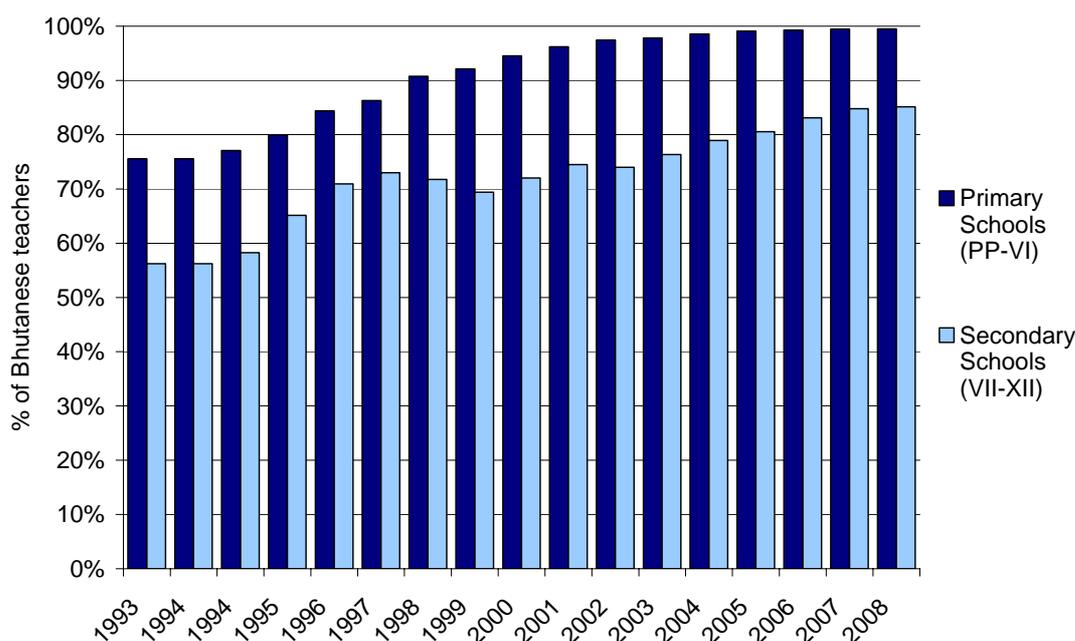


Figure 9 Proportion of Bhutanese teachers in primary and secondary schools, 1993-2008 (Source: MoE)

The **proportion of female teachers** levelled off at around 40 percent in recent years and is slightly higher in secondary schools (41 percent in 2008) than in primary schools (36 percent in 2008). This proportions do not increase due to the regulation that every teacher has to teach for at least three years in a remote school, what seems to bear little attraction to female graduates (see also chapter 3.1.1). This also explains why the proportion of female teachers is higher in secondary education. Secondary schools are not located in very remote areas, whereas primary schools are.

The newly deployed Bhutanese **teachers are also better trained** (see also chapter 3.2.1). Whereas in 1998 only 5.1 percent of teachers in primary and secondary education in Bhutan had a masters degree and 14.5 percent a bachelors degree, these proportions have increased to 7.6 percent and 44.2 percent respectively in 2008. That means a considerable increase of teachers having a masters or bachelors degree within ten years only. Today, more than 50 percent of teachers have a bachelors degree or more. Not all teachers, however, have been trained in teaching. A relatively constant proportion of around 10 percent of the teaching force did not receive a specific teacher education. On the other hand, the number of teachers not having any education certificate is rapidly decreasing. In 2008, only 30 teachers (0.5 percent) did not have had any training or were still under matriculation (see Table 7).

Table 7 Proportion of teachers trained and their level of training, 1998, 2003 and 2008 (Source: MoE)

Academic degree	1998		2003		2008	
	proportion	of which not trained	proportion	of which not trained	proportion	of which not trained
Masters degree	5.1 %	26.2 %	8.5 %	19.6 %	7.6 %	27.3 %
Bachelors degree	14.5 %	40.2 %	14.6 %	22.9 %	44.2 %	8.4 %
Higher secondary education	48.8 %	4.2 %	53.8 %	3.5 %	32.0 %	10.3 %
ZLTC	21.2 %	1.9 %	18.4 %	1.4 %	15.7 %	15.0 %
non / under matriculation	10.4 %	2.6 %	4.7 %	2.7 %	0.5 %	33.3 %
Total	100 %	9.9 %	100 %	7.3 %	100 %	11.6 %

The increase of teachers – more Bhutanese and better trained ones – in primary and secondary education in Bhutan was only possible thanks to an **increase of studying places for teachers** in Bhutan.

Pre-service teacher education in Bhutan is provided at two colleges, the Colleges of Education (CoE) in Samtse and Paro, the former established in 1968 and the latter in 1975. The number of pre-service students enrolled at the two CoEs has increased from 205 in 1993 (74 in Paro and 131 in Samtse) to a total of 1'264 in 2008 (724 in Paro and 540 in Samtse, see Figure 10).

In these 15 years, the proportion of **female students** has fluctuated between 27 percent (1994) and 56 percent (1998), with an average of 40 percent of female pre-service students. Although more female teachers would like to be recruited for the teaching profession, the regulation that every teacher has to teach for at least three years in a remote school seems to set a limit to women wanting to become teachers.

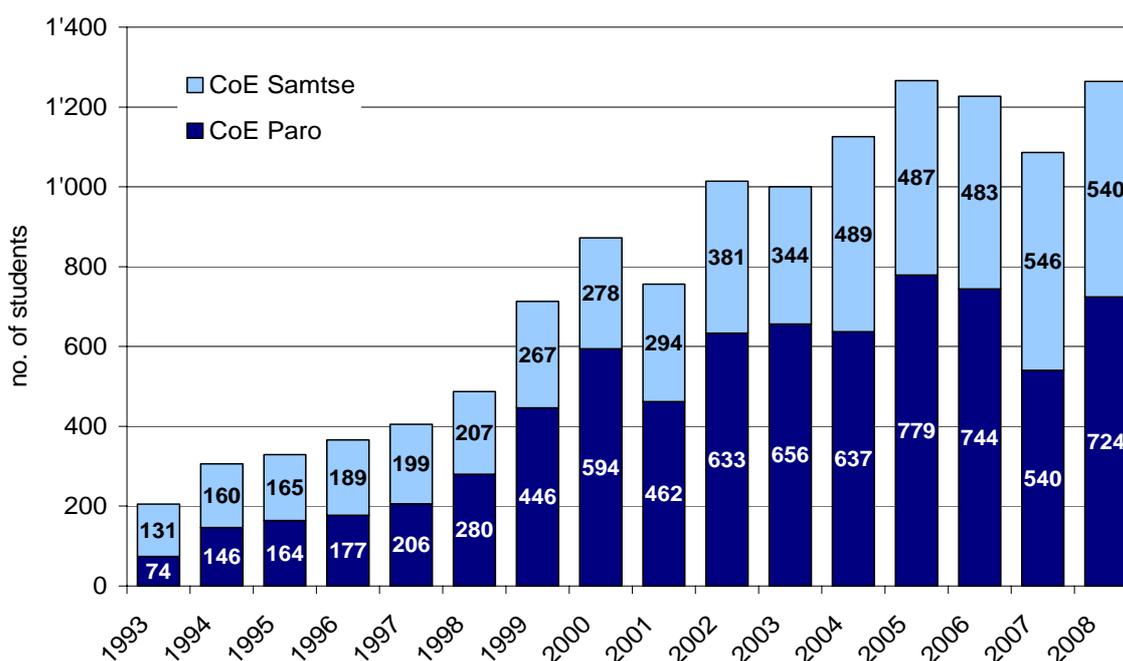


Figure 10 Number of students enrolled at the Colleges of Education in Paro and Samtse, 1993-2008 (Source: MoE)³¹

A better trained teaching force was also achieved by offering additional **in-service teacher education opportunities** to upgrade the qualification of Bhutanese teachers. Since 1995, the Ministry of Education has provided opportunities for in-service teachers to upgrade their qualifications by sitting for the national level examinations as private candidates. Until 2008, 447 have availed this opportunity (MoE Bhutan, 2008, p. 30). Since 2000, the Colleges of Education offer so called part-time or distance education programmes for in-service teachers. Teachers participating are offered classes during winter break and remote education during the academic year. A first opportunity offered is the upgradation to a Bachelors of Education (B.Ed.) in primary education being facilitated from the CoE Samtse and a second one, introduced in 2002, a Masters of Education (M.Ed.) programme in school management and leadership for school head masters at the CoE Paro. From 2003-2008, 205 teachers have acquired their B.Ed. in primary education from the CoE Samtse and 57 teachers a M.Ed. in school management and leadership from the CoE Paro (ebd., p. 31).

In 2008, a total of 599 part-time in-service teachers were enrolled at the two CoEs (see RUB, 2008):

- 51 for the two years Diploma in Leadership and Management (Paro)
- 93 for the five years M.Ed. in Leadership and Management (Paro)
- 136 for the three years B.Ed. in Dzongkha (Paro)
- 218 for the three years B.Ed. Primary Education (Samtse)
- 51 for the two years Course in Primary Mathematics (Samtse)
- 50 for the two years Course in Primary English (Samtse)

³¹ The enrolment at the CoE Paro decreased at two points during the last 15 years (see also chapter 3.2.1): (1) in 2001 due to new entry requirements into B.Ed. courses (that increased from class X to class XII) and the phasing out of the PTC and ZTC programmes in 2002 (no new entrances for these programmes in 2001); (2) for the decrease in 2006/07 the situation is less clear but may have been to a certain extent the result of the prolongation of the B.Ed. course from three to four years (less graduates deciding to choose teaching as a profession).

In short:

- Teaching capacities in primary and secondary education in Bhutan were enhanced to a great extent in the last 15 years.
- The number of teachers has almost tripled, from 2'084 in 1993 to 5'745 in 2008.
- The proportion of Bhutanese teachers in primary education increased to 99 percent in 2008 and the one in secondary education has reached 85 percent.
- In average, today's teachers are better trained. More than 50 percent of the teaching force has a bachelors degree or more.
- These enhancements were on the one hand achieved through a huge increase in pre-service teacher education studying places. At the two Colleges of Education (CoE) in Samtse and Paro, the number of pre-service students enrolled increased from 205 in 1993 to 1'264 in 2008.
- On the other hand, various new offers fore in-service teachers to upgrade their qualification have been created.

3.1.2 Contributions and impact of SDC/Helvetas projects

The increase in intake of the CoEs was only possible because **infrastructure was expanded** accordingly. PEP, SEP and the Swiss construction projects (see annex 2) account for the total expansion of the CoE Paro. That is an increase of 650 studying places between 1993 and 2008. In addition, PEP has supported the expansion of the two CoEs before 1993 counting for an estimate of 50 supplementary studying places in pre-service teacher education.

Of the total of around 700 additional studying places finances through PEP, SEP and the Swiss construction projects, a minor share was contributed by the partners in PEP and SEP that are the World Bank/IDA and UNICEF (mainly funding constructions of schools) and the RGoB. As a rough estimate, the **Swiss projects may have provided 500 additional studying places at the CoEs**. These studying places have considerably contributed to address the huge shortage of qualified teachers in Bhutan and hence to the increased availability of basic education (see chapter 2.1).

The new infrastructure for teacher education provided by PEP, SEP and the Swiss construction projects mainly at the CoE Paro are not just "normal" studying places for Bhutanese circumstances. As some Bhutanese interviewees put it: "It is a very nice, solid, functional, traditional, and modern building". "CoE Paro has the best infrastructure of all RUB colleges." "We are very proud of the facilities in Paro. The Swiss showed us how to integrate Bhutanese and modern architecture." Hence, the Swiss infrastructure is said to demonstrate "a centre of excellence" that the CoE Paro wants to be and it is felt that the Paro complex very much **demonstrates the importance of education** that the RGoB is following with its policies.

The CoE Paro is **intensively used and very well maintained**. Through the Swiss support, the college established an operation and maintenance system that ensures that infrastructural resources are optimally used and cared for. This system is well implemented because there is the necessary qualified staff available. E.g. the SDC/Helvetas projects have financed a fellowship for a facility manager to be trained and she is now taking care of the maintenance on a highly professional level. In addition, the facilities are very intensively used. Not only pre-service teachers are trained. When they go for their vacation the facilities are used for continuous education of in-service teachers. And for example the assembly hall is also used by the community at those times the CoE does not occupy it.

While constructing the new facilities of the CoEs, the project also **strengthened the capacities of technical staff and contractors** executing the construction work. Many of these technical staff is now employed at the School Planning and Building Division of the MoE and previous contractors are said to have a good reputation, continuing providing high quality construction work in Bhutan.

Last but not least, the new infrastructure very much **contributed to improving the quality of teacher education**. This will be outlined in chapter 3.2 below.

In short:

- The Swiss projects provided an estimate of 500 additional studying places for pre-service and in-service teachers at the CoEs.
- The facilities of the CoE Paro are perceived as very nice, solid, functional, traditional, and at the same time modern. They are said to demonstrate “a centre of excellence”.
- The SDC/Helvetas projects have ensured the long-term optimal use and care of the facilities by also developing an operation and maintenance system and training staff for its implementation.
- The Swiss projects have in addition strengthened capacities in the construction sector.

3.2 Quality of education and learning at the Colleges of Education

“The long continuous interaction between the Swiss and the Bhutanese built a new culture of teaching and learning that is sustainable.” (Interviewee from a CoE)

3.2.1 General developments

Teacher education in Bhutan also attained considerable improvements in terms of quality in the last 15 years.

Improvements in pre-service teacher education have been achieved with regard to **entry requirements and duration of training**. In the late 1980s only a Primary Teacher Certificate (PTC) of two years duration and a Bachelor of Education (B.Ed) in secondary education of three years duration was offered at the CoEs of which one year was spent as apprentice teacher in school. In 1990 a Post Graduate Certificate in Education (PGCE) for secondary teaching of one year duration for students that already had acquired a first degree certificate was introduced and in 2000 a B.Ed. in primary education with the entry requirement increased from class X to class XII. In 2002, the PTC and ZTC programmes were phased out and a distance education degree programme for teachers with only PTC and ZTC certificates introduces. In addition, B.Ed. programme was expanded to include Dzongkha. And in 2006, the B.Ed. programmes were extended to a duration of 4-years.

In spite of all these higher demands to students, the **number of graduates increased** considerably (with a temporary decline in the early 2000s due to the phasing out of PTC and ZTC and the prolongation of the courses), from a total of yearly 76 in 1993 to more than 400 in 2007 (see Figure 11). This was very important to address the huge teacher shortage in basic education in Bhutan (see chapter 2 above).

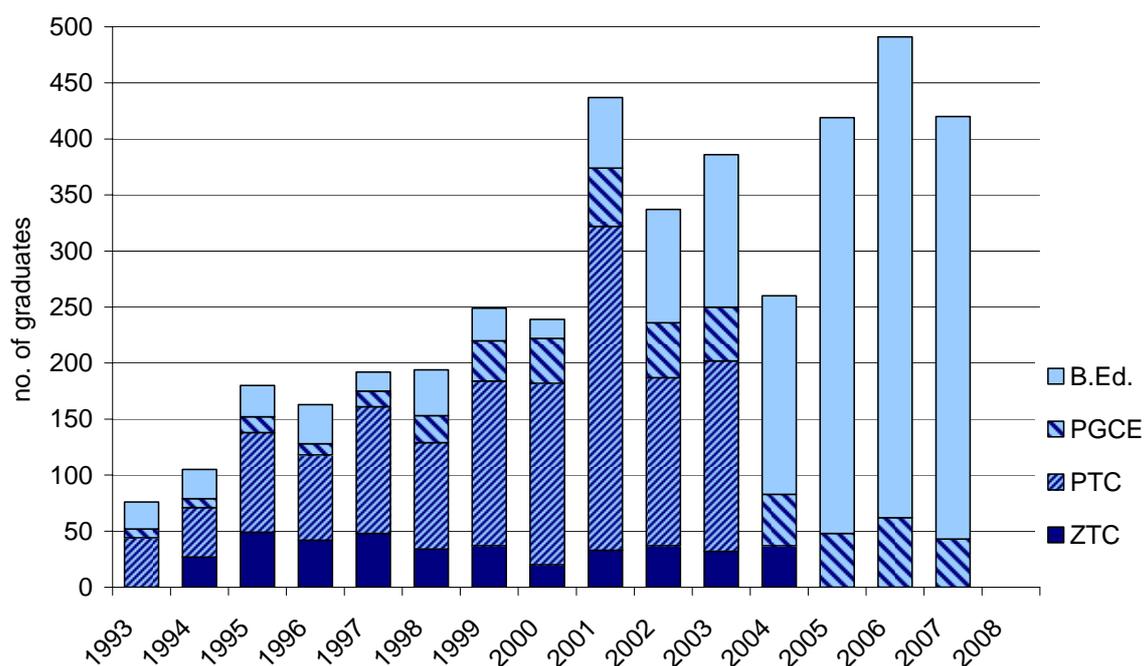


Figure 11 Number of students graduating with a B.Ed., PGCE, PTC, or ZTC certificate from CoE Paro and Samtse, 1993-2007 (Source: MoE)

In the last 15 years (1993-2007), a total of 4'148 teachers have graduated from pre-service education at the two Colleges of Education whereas from 1970 to 1991 (a span of 21 years) a total of only about 1100 (about one fourth of the above) teachers graduated (MoE Bhutan, 2005, p. 21). And these new graduates are even better educated than the cohorts in earlier years.

To the currently more than 400 graduates from pre-service teacher education per year, another 200 in-service teachers receive a teaching diploma from the two CoEs (RUB, 2008) and hence received the opportunity to upgrade their qualification.

To make these developments possible, **much more teacher educators and support staff had to be deployed** at the CoEs. However, the teaching force at the CoEs has not increased to the same extend as the amount of students had become more. The number of students has multiplied almost three times between 1996 and 2007 (from 366 to 1086, not including the also increasing number of in-service teachers participating in part-time programmes at the CoEs) but the number of teacher educators only raised by 116 percent in the same period, from 44 to 95 (see Figure 12). Recruiting and training sufficient teacher educators still poses problems due to the limited attractiveness of the profession (see below) and scarce resources for the needed training.

Most teacher educators at the CoEs are said to be very **well trained**. Of the 99 teaching staff deployed at the two CoEs in 2008, 71 have a masters degree, 21 a bachelors degree and 7 another certificate. However, some interviewees also mentioned, that some colleagues should not have been employed because they are not sufficiently motivated, mature or skilled. But it was also stressed that it was difficult to recruit the best people for teacher education because the work at the CoEs is very much with rather little flexibility, not a very attractive salary and relatively few possibilities to travel. Comparably educated people seem to prefer an employment in the school administration.

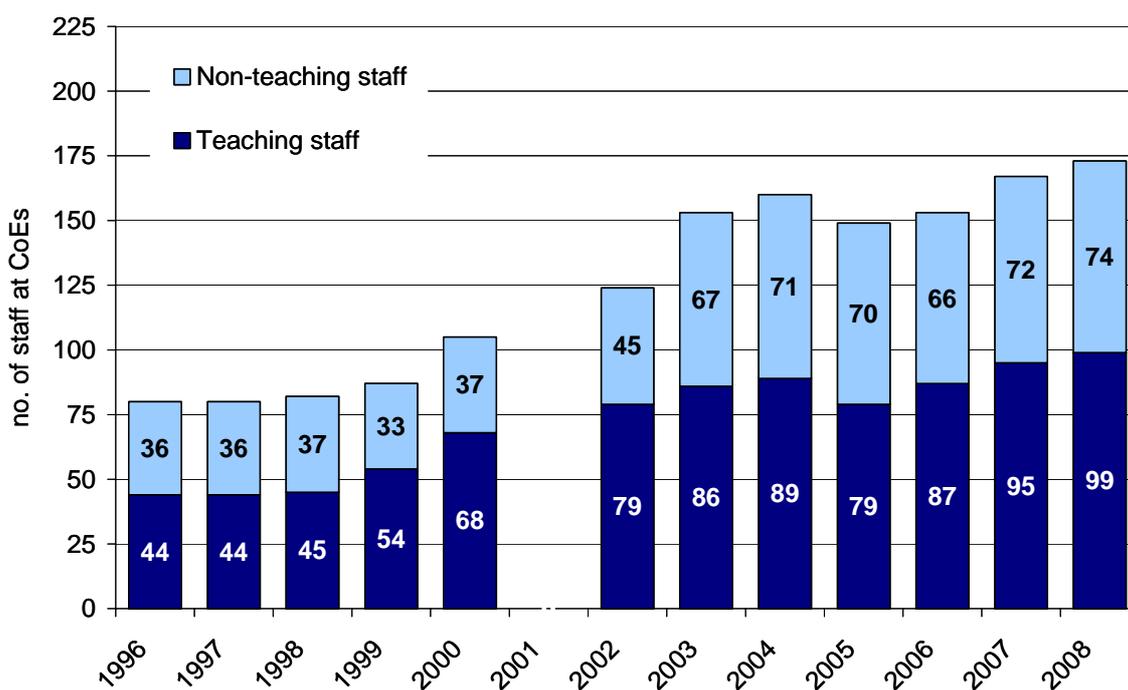


Figure 12 Number of teaching and non-teaching staff at the two CoEs, 1996-2008 (Source: data provided by CoEs)³²

Almost all interviewees stated that the **quality of teaching at the CoE has improved**. One interviewee said: “In the last 20 years teaching quality at the CoEs has improved dramatically, quality has continuously gone up.” Teacher educator are said to be not only much more competent but also became more self-confident and critical and hence able to further develop teacher education.

On the one hand, **curricula and education concepts at the CoEs have been continuously enhanced**. Not only the entry requirements and duration of teacher education increased (see above). Also more effective and locally anchored and thus relevant education concepts were developed and institutionalised at the CoEs. Most important improvements during the last 15 years may be the following ones:

- Concepts of teaching practice: improved relation of theory and practice, more teaching practice in pre-service teacher education, trained associate teachers (AT)/mentors available for novice teachers, effective concepts for mentoring (interview cycle). “Students get well prepared, they can manage classes. Hence, didactics at the CoE was good. Students learned how to teach.” (Head master interviewed) “We very much shifted from a supervising role of AT to a collaborative mentoring role.” (Teacher Educator interviewed)
- Teaching and learning methods: solid concepts of activity based learning, clear focus on teaching skills (rather than only content), integrated subject methodology, many good examples of how to implement the approaches in schools.
- Multi-grade teaching: “Bhutanese approach” developed and implemented in pre-service teacher education for teaching in the many remote and very remote schools (where every teacher has to teach at least three years during his teaching career).

³² data previous to 1996 and for 2001 not available, number of non-teaching staff for CoE Paro in 2008 not available, thus estimated by the author

- Assessment of students: completely new approach to assessing per-service teachers, specific M&E tools developed, portfolios available, teacher standards as benchmark.
- Youth guidance and counselling (YGC): continuous development of the concept of YGC, introduction as an optional subject³³ for pre-service students at the CoE.
- ICT literacy: ICT-based learning introduced, curricula for ICT literacy developed. “Our students are ICT-literate when they leave the college.” (Teacher Educator interviewed)
- Teaching-learning material: New concepts developed are presented in corresponding material, the training material available is of high quality, the developed material is intensively used and periodically reviewed, not only in teacher education. “Everybody in education in Bhutan knows the Learning-Teaching Leaflet³⁴ and the Teaching Skills Handbook.” (teacher interviewed)

On the other hand, **teaching and learning approaches have faced fundamental changes**. At the CoEs, much more activity based learning is practiced. Teacher students often work independent, participatory methods are applied and various assessment methods used.

The improvements very much relied on the much better qualified teacher educators and the available **high quality infrastructural resources**, the **improved institutional setting** as well as the **good material accessible** for teaching and learning.

- The new buildings at the CoE Paro are said to be a very conducive working and learning environment. They are very solid, well maintained and functional and offer everything what educators need for their working and teaching and students require for learning. Much appreciated is the full range of (special) facilities at the CoE Paro such as functional classrooms, science labs, a computer centre, lecture theatre, auditorium, reprographic/audio-visual and sports facilities. The number of classrooms and especially the boarding facilities at the two CoEs, however, are much too small to accommodate the still increasing number of students. Thus, in Paro, many students stay in private houses in the village but in Samtse, students have to squeeze into the rooms available. Some double rooms are occupied by six students.
- The transfer of some educational institutions to the CoE Paro has generated several synergies. In 2000, the Curriculum and Professional Services Division (CAPSD) of the (Department of School Education (DSE) was shifted from Thimphu to the CoE Paro and in 2001 the Centre for Education Research and Development (CERD) established and entrusted to the CoE Paro (Dorji, 2005, p. 19). The more or less close cooperation with these institutions have on the one hand further improved teacher education and on the other hand facilitated, that developments of the CoE are incorporated into new curricula. In addition, the CoEs themselves have been transferred from the MoE to become colleges of the newly established Royal University of Bhutan (RUB). Although some fears exist that this transfer could somewhat detach CoEs from the schools in Bhutan, considerable advantages are expected from being part of a University with e.g. its comprehensive quality assurance system.
- Important for the increased quality of learning at both CoEs is the availability of a big and well equipped library and – since few years – sufficient computers with internet access for students and staff alike.

³³ That is one of two specialisations every student has to choose at the CoE.

³⁴ Also called „The Swiss Leaflet“, see below.

Very many improvements in teacher education have been achieved in the last 15 years. Concepts of curricula and methods may be assessed as very effective and relevant. But when it comes to their implementation, however, **two factors are said to be major constraints** to have them optimally applied: (1) the big number of students or the lack of sufficient teacher educators at the CoE that causes huge workloads for teacher educators and thus restrict the application of some of the more elaborate approaches; (2) the selection of students³⁵ and teacher educators³⁶ on which the CoEs do not have much influence and of what is felt by many interviewees not resulting in the best quality choice of students and teacher educators.

In short:

- The entry requirement for pre-service teacher education has increased from classes X to XII and the duration of pre-service courses from 2 to 4 years.
- The number of graduates from pre-service teacher education has increased from a yearly total of 76 in 1993 to more than 400 in 2007 that are even better qualified than earlier cohorts. In addition, around 200 in-service teachers currently receive a teaching diploma from the two CoEs each year and thus have upgraded qualifications.
- Teaching staff at the two CoEs has risen in the same period by 116 percent, from 44 to 95. Still more would be needed.
- Most teacher educators are very well trained and competent. They are said to be more self-confident and critical than earlier and thus able to further develop teacher education themselves.
- The quality of teaching at the CoE has very much improved. On the one hand, curricula and education concepts at the CoEs have been continuously enhanced. On the other hand, teaching and learning is much more activity based. Students often work independent, participatory methods are applied and various assessment methods used.
- The new high quality infrastructural resources, improved institutional settings as well as accessibility of good material have also contributed to enhanced teaching and learning.
- Limits to implement new teaching and learning approaches at the CoEs, however, are said to be the high lecturer-student ratio and the suboptimal entry-requirements for/selection of students and lecturers alike.

3.2.2 Contributions and impact of SDC/Helvetas projects

One major impact the SDC/Swiss projects have achieved – and this was explicitly stressed by almost all interviewees – was the **human resource development (HRD) of the teacher educators** of the CoEs that has been a major precondition to increasingly well educate the large amount of Bhutanese teachers needed for reaching Quality Education for All by 2015.

HRD was on the one hand supported by providing fellowships and on the other hand by long-term collaborative developments through PITT (see below). PEP, SEP and STEP financed a total of 342 slots for national or international staff training, including long-term international degree programmes (9-24 month), short-term programmes and attachments (1-3 month), study tours and workshops abroad. The majority of fellowships was earmarked for (future) teacher educators of the

³⁵ All graduates passing class XII exams are allowed to register for pre-service teacher education.

³⁶ Teacher educators are deployed by the Royal Civil Servant Commission (RCSC)

two CoEs.³⁷ Together with the Canadian support to the CoEs that also financed several fellowships, the majority of teacher educators in Bhutan have received further training and many teachers from schools were able to qualify to become teacher educators. Due to the mostly careful selection of the candidates and the placement of them in positions relevant to their training and prior experience, the fellowships are said to have been very effective in increasing the quality of teaching and learning at both CoEs.

Through this support to increase the competences of more teacher educators the Swiss projects made an impact on teacher education in terms of quality and quantity. In addition, the Swiss projects directly contributed to **capacity strengthening of the in-service teaching force** by supporting various in-service teacher education programmes. Among others, SEP has supported annual trainings in (1) basic management for head masters; (2) library induction; (3) assessment and evaluation principles. Under these so called national based in-service programmes (NBIP), hundreds of head masters, school librarians and teachers have been trained (DoE Bhutan, 2001, p. 10). Under SEP an enhanced management course for head masters was established³⁸ and a “Teacher Education Unit” at the CoE Paro institutionalised that is responsible for streamlining INSET programmes for teachers in the country. Over all, these capacity strengthening activities of school personnel can be judged as very effective and relevant. In the words of the recently conducted Joint Donor Education Sector Review: “... in-service training which has been provided is effective, but not enough” (UNICEF et al., 2009, p. 9).

Another impact of SDC/Helvetas projects that was generally assessed as huge and important was the contribution to **improved teaching and learning concepts of the CoEs** through PITT. “Swiss support came in a time when we had to perform a huge change in teaching and learning. Especially in methodology the Swiss helped us a lot.” (Interviewee from a CoE) However, what part in detail could be attributed directly to the Swiss interventions was judged as rather difficult to identify by the different boundary partners interviewed. Inseparably linked to the Swiss support (PITT), very relevant and effectively implemented are, however, the teaching practice with mentorship and intervention as well as the Teaching Skills methodology. New concepts were generally developed in a participatory manner, including various stakeholders, trying to incorporate different perspectives. E.g. “In developing the ‘Idea Folder’, almost everybody was involved.” (Interviewee of a CoE) And this seems to have been the strength of the cooperation with partners from the TTC Zurich. They were said to have made a lot of suggestions always carefully listening to the needs of the Bhutanese partners, leaving them a lot of room for trying out new ideas, balancing different options and approaches to finally have a concept developed that really meets the needs of the Bhutanese education situation.

Many new concepts and products were developed in the above described participatory and cooperative manner. They are mentioned in chapter 3.2.1 and listed in annex 5. And most of the **commonly developed concepts and materials are widely and intensively used**, not only in both CoEs but also in schools. Thanks to the broad involvement and careful development, the Bhutanese partners very much identify themselves with these concepts. For example the “Swiss Leaflet” elaborated in 1992 and the “Teaching Skills Handbook” first published in 1993 have in the meantime been reviewed several times by the Bhutanese partners themselves and are known by all teachers interviewed in the frame of this IA. Teacher educators are able to apply the new concepts

³⁷ In addition, fellowships have been provided to management, maintenance and support staff of the CoEs (see chapter 3.3.2) as well as to staff of the education administration at regional and central level (see chapter 4.3).

³⁸ The trainings for head masters were in addition supported by CIDA, Danida and UNICEF.

as a result of the approach chosen by the Swiss partners. As one interviewee puts it: “The approach was very effective. It helped to transform teaching and learning because teacher educators had the chance to experience new approaches. And that was supported by the Swiss. They have demonstrated approaches, then we have gone through it in workshops and then we have tried it out in practice, it was supervised and feedbacks given.” Or: “Before, we were only lecturing, but now we moderate active learning.” PITT **contributed effectively to the HRD of teachers and teacher educators** involved.

SDC/Helvetas **construction projects of CoEs have also contributed to the enhancement of teaching and learning** and of education in general. The new working space for CoE personnel (teacher educators, curriculum developers, researchers and support staff) has enabled valuable synergies and interactions among the three different divisions (CoE, CAPSD and CERD). The new laboratories, special rooms and sports facilities enable activities in networking, audio visual, experimenting, physical and cognitive education not only for pre-service education but also for in-service programmes that are offered when pre-service students have their vacation.

A substantial impact was achieved by the Swiss projects through provision of supplementary material for the **libraries and new ICT infrastructure** at both CoEs. Through STEP, the libraries of the two colleges sextupled their stock and for around eight students one computer with internet access is available. This has enabled a **further modernisation of teacher education in Bhutan**. Through these provisions, active and independent learning of students was enhanced; access to up-to-date information for lecturers, teachers and students provided and today’s very important ICT literacy of teachers facilitated.

In short:

- SDC/Helvetas projects have considerably contributed to increasingly well educate the large amount of Bhutanese teachers needed for reaching Quality Education for All by 2015 by providing extensive and very effective fellowship opportunities to (future) teacher educators of the CoEs.
- Swiss projects contributed to capacity strengthening and upgradation of the in-service teaching force by supporting various INSET programmes.
- PITT has had a very positive impact on teaching and learning concepts of the CoEs. Curricula and methodology have been modernised and at the same time carefully Bhutanised. New concepts, approaches and materials were commonly developed and thus are widely and intensively used in Bhutan, far beyond teacher education.
- PITT has effectively contributed to the HRD of teachers and teacher educators through the many workshops that were conducted at the CoEs and in schools.
- The Swiss construction projects of CoEs have also enhanced teaching and learning by enabled valuable synergies.
- The library support and new ICT infrastructure for both CoEs provided in the frame of STEP have enabled a further enhancement of teacher education because they facilitate active and independent learning of students, access to up-to-date information for lecturers, teachers and students and today’s very important ICT literacy of teachers.

3.3 School management and administration at CoEs

“Thanks to the Swiss, we are better organised, better prepared, we are much more systematic, we are more reflective and analytical, that can be felt throughout. Almost all lecturers have used the manuals. That’s why everyone has achieved this. And the new lecturers are introduced during six month after they have started here, we formalised this, we make the planning for introducing new lecturers together when we do the planning for the CoE.” (Interviewee from a CoE)

3.3.1 General developments

The management and administration at CoEs has faced huge changes in the last 15 years. Whereas the two Colleges of Education were small institutions in the beginning of the 1990s, counting less than 20 teaching and 20 non-teaching staff each, these numbers have more than doubled. In addition, new responsibilities have been shifted to the CoE such as new courses or the new research function (establishment of CERD). All these made changes in management structure and processes inevitable.

The management approach at the two CoEs has shifted towards more distributed leadership. Various **sectors and corresponding positions have been created**, such as deans for academic affairs, deans for organisational and financial issues (“Today, the deans are the pillars of the management”, interviewee), heads of subject departments, leaders of degree programmes and chiefs of support services. This has led to a considerable cultural change. In the words of some interviewees: “The management is now able to delegate and e.g. form working groups.” “There was a shifted towards collaborative decision making. That’s a big shift.” “We much improved teamwork.” “Everything is more decentralised.” “Management became much more structured, more internationalised and there is a better job distribution.” “It was a big dissemination of power. That ameliorated the college and we now have an organogram.”

Staffs that took up new responsibilities in these positions have received specific training and thus **considerably increased their competences**, what contributed much to quality improvement of the CoEs’ services.

To address the new management challenges, **several new management tools** have been introduced. In the early 2000s, a comprehensive Quality Management System was elaborated (Dürsteler & Zollinger, 2002, p. 2f.) and subsequently new management tools developed and implemented. These are, just to mention some, (1) regular tracers studies (e.g. Dürsteler et al., 2001) that are used as basis to further develop teacher education; (2) institutionalised internal staff training and regular professional exchange among teaching staff, implementation of team-teaching (using the intervision cycle); (3) staff portfolio, regular performance assessment of staff, development of an institutional long-term HRD-plan. The new management guidelines of the CoEs have lately been evidenced by a so called “Conceptual Framework” (CoE Paro, 2008).

The current management at both colleges is generally **perceived as quite efficient and effective**. However, the quality of management was also said to depend much on the director, some former directors not very well knowing how to motivate staff and how to best use the available compe-

tences. But directors have changed quite often in the last years. With the new management structure these dependence was considerably reduced. And **management at the CoEs is supposed to be sustainable**. It is able to continuously optimising the quality of processes and services at the CoE. Some important decisions, however, are still made on a central level (at the RUB and the RCSC), what is felt as challenging by some stakeholders.

The coordination and cooperation between the CoEs in Paro and Samtse has sometimes been difficult in the past. And nowadays, Samtse occasionally feels a bit set back, what is clearly the case in terms of geographical location. Some interviewees, however, stated that there are no problems in cooperation between the two colleges and that especially **the professional cooperation between Paro and Samtse has much improved**.

In short:

- The management and administration at CoEs has faced huge changes in the last 15 years.
- New sectors and corresponding positions have been created and bearer of these positions received specific training and thus considerably increased their competences.
- A comprehensive Quality Management System has been developed and several new management tools introduced that are evidenced by a so called “Conceptual Framework”.
- The management at both colleges is generally perceived as quite efficient, effective and sustainable.
- The cooperation between the CoEs in Paro and Samtse is felt to have improved.

3.3.2 Contributions and impact of SDC/Helvetas projects

SDC/Helvetas projects have contributed to improving management and cooperation of the CoEs on different levels.

First, SDC/Helvetas projects (PEP, SEP and STEP) have financed several fellowships for management, maintenance and administrative staff (see chapter 3.2.2). “With the input from the Swiss in HRD, management became much easier.” The impact of the Swiss HRD support on improving management and administration can be assessed as substantial.

Second, STEP has dedicated one full component to improving the management of CoEs. Through several consultancy missions, management practices have been analysed, suggestions made for improvements and new management tools developed. Hence, the newly developed visions and missions, the tools such as tracer studies, portfolios, long-term HRD-plans, regular staff exchange as well as improved institutional links and enhanced research competences can be mostly attributed to the interventions of the Swiss projects. The results are summarised by interviewees as follows: “Only through STEP we received a written management policy. With STEP we made a big step and we now have a good number of management policies.” “The ‘Conceptual Framework’ was a direct outcome of the Swiss cooperation.” The impact, however, will only be seen in the future. But it is expected, that the Swiss projects **have contributed to make management of CoE more efficient, effective and sustainable**.

Third, PITT and STEP have **positively impacted the professional cooperation** of the two colleges. Whereas in earlier days the cooperation mostly took place only between PTC lecturers, the Swiss workshops have brought teacher educators of both colleges closer together, sustainably improving the cooperation and the common development of concepts and methods. In addition, the

long-term close cooperation between the TTC Zurich and the CoEs in Bhutan are said to have much contributed to a general culture of sharing and learning from each other.

Some interviewees pointed to **the uneven distribution of the Swiss support to the two CoEs**. “Paro has benefited much more from the Swiss projects. Samtse always received a bit a step-mother-treatment.” (Interviewee from a CoE) On the other hand it was stressed, that the CoE Samtse has been supported earlier and by other donors, that the CoE Samtse had a long tradition and good reputation, that most students wanted to study in Samtse and that it was a political decision of the RGoB to strengthen the CoE Paro. Hence, the Swiss projects very much were in line with the policies of the RGoB and only more evenly distributed the (construction) support during STEP.

In short:

- The fellowships financed by the SDC/Helvetas projects have considerably contributed to HRD of management and administrative staff and thus positively impacted management efficiency and effectiveness.
- STEP has effectuated the development of a conceptual framework for managing the two CoEs that provides several tools for continuously improving the quality of processes and services and thus increasing the chance of sustainability of the CoEs' activities.
- The Swiss projects also contributed to improving cooperation within and between the CoEs.
- Some stakeholders, however, mentioned the uneven distribution of the Swiss (construction) support to the two CoEs. But this strategy was fully in line with the policy of the RGoB.

3.4 Perception of effects on teacher education and training in Switzerland

“The Swiss lecturers have benefited equally through regular interactions with their partners. They got a chance to learn a lot about teacher education in another country and about the unique Bhutanese tradition and culture.” (Frei, 2003, p. 16)

From a **theoretical perspective**, effects of so called North-South-Partnerships in higher education on the partners in the North may occur on different levels (Stessens, 2006; Sieber, Schüssler, John & Braunschweig, 2009):

- (1) individual capacity strengthening (personal motivation, individual competences, career opportunities);
- (2) institutional capacity strengthening (academic competences and outputs, institutionalisation of new contents or new structures);
- (3) improved national and international networking opportunities.

The IA has **asked different stakeholders on their perception of effects** on teacher education and training in Switzerland through the long-term cooperation PITT between the CoEs of Bhutan and TTC Zurich/PHZH Switzerland on these different levels of potential impact. The answers of various interviewees provide a consistent picture of the effects of the long-term cooperation in teacher education.

All interviewees have mentioned that the **directly involved Swiss teacher educators** – 25 in number (Frei, 2003) – have **improved their intercultural awareness** through the long-term coop-

eration with the CoEs in Bhutan. The involved Swiss experts are said to have become opener, more globally aware and internationally open. “Expats rejuvenate through a Bhutan-experience. The Buddhist-perspective makes people calmer. They are more content about what they have and don’t ask for too much from their environment. They have seen how it could also be with big classes and little material and that this also works.” (Interviewee from Bhutan) In addition, the examination of basic questions of education stimulated their reflection on their own practices and made them dare to **try out new approaches** they never had thought of before. And this was said to have given a high satisfaction, especially because most Swiss partners have expected from their work for PITT a job enrichment. Many interviewees also mentioned the **increase of English competences** due to their engagement in PITT, some pointing to huge (necessary) improvements of some of the Swiss partners.

The majority of the Swiss partners have not been involved in development cooperation before and for many of them PITT offered the first opportunity of working in another country than Switzerland. For few of them their engagement with PITT **influenced marginally their individual career**. E.g. the director of TTC Zurich (and also project manager of PITT) was later involved in other World Bank projects, one teacher educator chose to do continuous education in development cooperation (courses at the NADEL) and some became (board) members of the Society Switzerland-Bhutan.

In terms of academic impact, some Swiss experts involved in PITT were **“taking up Bhutan” in their teaching work in Switzerland**. When Bhutanese delegations were in Zurich, the TTC Zurich has also tried to involve them in their seminars. In addition, some few information activities about the project were organised and some material produced in Bhutan was translated into German and applied at the TTC Zurich (e.g. the Swiss leaflet, some material on CA and examples of intervention). However, most activities were **limited to individual initiatives** and none of the contents were taken up into regular curricular activities at the TTC Zurich.

The number of 25 Swiss partners may seem little for a period of 14 years (PITT: 1989-2003), but for the TTC Zurich (about 22 teacher educators involved in PITT), which was a rather small institution³⁹, this made a considerable proportion of staff involved. Hence, **the partnership with Bhutan was visible at the TTC Zurich**. Most lecturers were informed about PITT what was, however, less the case for students⁴⁰.

In terms of institutional capacity strengthening the impact of PITT was limited and rather at random. But some Swiss involved in PITT were or have since taken up leading positions in Universities of Teacher Education or Universities of Applied Science in Switzerland. And all of them are known to be **very supportive to initiatives that foster development cooperation**. E.g. the proposal to found the department “International Projects in Education” (IPE) at the PHZH⁴¹ (an initiative of teacher educators working in South-East Europe) was much supported by the director of the PHZH that was the former Swiss project manager of PITT. Or one former PITT-lecturer leading a department at the PHZH facilitates the presentation of intercultural or international projects in continuous education of teacher educators.

New national or international **networking opportunities seem not to have been facilitated** through the TTC Zurich’s participation in PITT. Although few teacher educators still are in punctual contact with their Bhutanese partners, other new relations in teacher education were not reported.

³⁹ TTC Zurich was resolved when the University of Teacher Education was founded in Zurich in 2003.

⁴⁰ Students only studied for one year at the TTC Zurich what caused much fluctuation of students. The TTC offered a basic year before students started pre-service education for primary or secondary education.

⁴¹ Today, however, none of the teacher educators involved in PITT are working for projects of the IPE.

Some other TTC in Switzerland were informed about PITT, but, as one interviewee stated, “their reaction was rather jalousie”. But the Swiss teacher educators that were in Bhutan still form an informal network and inform each other when they initiate activities related to Bhutan.

The **institutional impact on teacher education in Switzerland and new networking opportunities may overall be assessed as rather little**, but this was not an objective of PITT⁴² and would have needed another approach. However, partnerships only targeting individual capacities are limited in effect and sustainability (Sieber et al., 2009). Once the people involved will leave teacher education in Switzerland, not much may be left.

But the **PITT approach was very effective in supporting teacher education in Bhutan**. The long-term cooperation for which the lecturers of TTC Zurich travelled to Bhutan mainly during their vacation very much facilitated common and cultural sensitive developments, the establishment of its precondition of trust and openness and even deep friendships. In addition, project administration could be kept very low. This considerably changed with the STEP approach of cooperation that was – on both sides – perceived as less effective. Accordingly, the impact on teacher education in Switzerland through STEP is even smaller than the one of PITT, not only because of the shorter duration.

In short:

- PITT mainly had an effect on those individual teacher educators that have travelled to Bhutan. They are said to have improved their intercultural awareness and their English competences. In addition, some of them tried out new approaches and “took up Bhutan” in their teaching in Switzerland.
- PITT only slightly influenced individual careers of few Swiss teacher educators involved.
- The institutional impact on teacher education in Switzerland and new networking opportunities may overall be assessed as rather small, but that was not the objective of PITT. The partnership with Bhutan, however, was visible at the TTC Zurich. In addition, some teacher educator were or have since taken up leading positions and are said to be very supportive to initiatives that foster development cooperation.
- National or international networking opportunities seem not to have been facilitated.
- The PITT approach was very effective in supporting teacher education in Bhutan. In comparison, STEP is assessed to have been less effective, in Bhutan and Switzerland alike.

⁴² “PITT is designed as a project of mutual learning. It meets primarily the needs of teacher training in Bhutan, but also offers new perspectives for teacher education in Switzerland.” (TTC/NIE & TTC Zurich/Helvetas, 1997, p. 1)



4 Impact on national education sector and system

The impact assessment (IA) has looked at the contribution of SDC/Helvetas projects on national education sector and system in four areas: (1) the contribution of SDC/Helvetas projects to national education policies and laws, presented in paragraph 4.1; (2) the budget allocation of SDC/Helvetas and other donors, presented in paragraph 4.2; (3) the perception of the quality improvement of education administration and up-scaling, presented in paragraph 4.3; (4) the sustainability of SDC/Helvetas' assistance, presented in paragraph 4.4.

4.1 Swiss contributions to national education policies and laws

“Reforms always were initiated by the MoE, but they were often promoted by people that profited from Swiss fellowships.” (Interviewee)

Transformation processes in public sector as the ones targeted by SDC/Helvetas projects are most efficient and effective when they materialise, among others, in accordant structures and enforceable regulations on system level (Girishankar, 2001, p. 8ff.). In the areas where the Swiss projects have been active, **many new policies and laws have been introduced**. What detailed contribution the Swiss made to all these changes is, however, difficult to assess. Many reforms were proper policies of the RGoB but substantially supported by SDC/Helvetas projects (good alignment of the Swiss projects, see chapter 4.2) and some reforms have been supported by several donors.

Some changes to which the Swiss have undoubtedly considerably contributed are the following (with no pretension of being exhaustive):

- Establishment of a School Planning and Building Division in the MoE and provision of standardised designs for new school buildings (much moderated by the Swiss projects);
- Introduction of decentralised school monitoring with a system of clusters and focal persons that provide support to teachers; provision of comprehensive guidelines, which are revised and updated on a regular basis (SDC/Helvetas projects supported the training necessary for the education officials at all levels to carry out decentralised school-level monitoring and support functions);
- Multi-grade teaching was adopted as a policy in rural community schools (concept introduced by the Swiss, supported also by other countries/donors such as Canada, Denmark, Australia and UNICEF);

- Institutionalisation of new degrees for teachers: B.Ed. in primary education and M.Ed. in leadership and management, the first and so far only masters degree course in education in Bhutan (the M.Ed. course was considerably supported by Canada, Denmark and UNESCO);
- Prolongation of B.Ed. courses from three to four years (changes developed based on the base-line study conducted through STEP);
- Establishment of an INSET-unit with a full-time director and the formation of an INSET-committee at the CoE (decision of the DoE in 2000, based on the review of INSET supported by SEP);
- Continuous assessment will further be promoted by the MoE and CoEs will follow-up on it;
- Resource Centres that aim at facilitating professional exchange between in-service teachers in remote areas have been established in almost all clusters in remote areas; today around 35 Resource Centres are operating (five pilot Resource Centres were introduced by SEP);
- The RGoB incorporated support to school libraries into the regular budget: every school gets a yearly contribution of Nu. 10'000 plus Nu. 200 per student for buying new books for its library (SEP started this support by piloting a Supplementary Reading Programme);
- Institutionalisation of youth guidance and counselling as an elective subject at the two CoEs (decision of the Teachers Education Board and the RUB in 2005);
- Recognition of youth guidance and counselling as an official function in within the MoE (decision by the Royal Civil Servant Society);
- The integration of the CoEs into the newly established Royal University of Bhutan (that was fostered through the high quality staff and education at the CoE that was much promoted by the Swiss projects);
- ICT in CoEs is offered as compulsory subject to all students (STEP has provided capacity strengthening and equipment);
- A new management approach was institutionalised at the CoEs with its policies evidenced in a conceptual framework including vision, mission, organisational chart, programmes, procedures, code of conduct and ethics (STEP has provided consultancies).

All Swiss interventions have been developed and implemented in very close cooperation with relevant Bhutanese and international stakeholders. Project components were in line with local strategies and policies and thus have yielded in an institutionalisation of the results and hence achieved a high impact on national level.

Besides this general alignment and institutionalisation of the Swiss project components, the Swiss experts in education have also contributed to general policy development of Bhutanese education e.g. by supporting the MoE in decision making and providing technical assistance to topical questions.

In short:

- It is difficult to assess the contribution of SDC/Helvetas to certain national education policies or laws introduced in the last decades because the assistance of the Swiss was well aligned with proper Bhutanese education policies.
- Most components of the Swiss projects have yielded in an institutionalisation of the results and thus achieved a high impact on national level.

4.2 Budget allocation of SDC/Helvetas and other donors, donor harmonisation

“Generally the policy of the RGoB is to meet all the recurrent costs from internal resources while most of the capital investments are provided through international development partnerships. In the Education Sector, World Bank, DANIDA, JICA, GOI, CIDA, UNICEF, Helvetas / SDC, Save the Children US, UNFPA, and WFP are involved.” (MoE Bhutan, 2006, p. 7)

The RGoB with its policy priority of providing good quality social services to all the Bhutanese people has always spent a considerable share of its overall budget to the social sector. **For education, the share has always been around 10 percent.** In the period SDC/Helvetas have supported education in Bhutan, the average share for education of the total budget of RGoB was 11.2 percent in 1992-1997, 10.2 percent in 1997-2002 and 14.6 percent in 2002-2007 (see Table 8).

Table 8 Outlays of Five Year Development Plans (FYP), first to ninth plan (1961-2007), in Nu. in million (MoHE Bhutan, 2001 and 9th FYP)

	1 st FYP 1961-66	2 nd FYP 1966-71	3 rd FYP 1971-76	4 th FYP 1976-81	5 th FYP 1981-87	6 th FYP 1987-92	7 th FYP 1992-97	8 th FYP 1997-02	9 th FYP 2002-07
Total budget RGoB	107.1	202.2	475.2	1106.2	4711.2	9559.2	15590.7	39523.8	70000.0
Educa-tion	9.4	35.7	90.1	134.6	410.0	778.8	1738.0	4025.0	10209.4
Share of education	8.8%	17.7%	18.9%	12.2%	8.7%	8.1%	11.2%	10.2%	14.6%

Of the total RGoB budget for education of more than 3'700 Nu. in 2008, 33.8 percent were used for the education administration and for school services, 17.4 percent for Community Primary and Primary Schools, 34.9 percent for Secondary Schools and 4.6 percent for the two Colleges of Education (MoE Bhutan, 2008, p. 51).

The amount SDC/Helvetas has contributed to basic education in Bhutan between 1993 and 2008 counts for a total of CHF 26.6 Mio. of which CHF 12.5 Mio. have been spent for HRD and CHF 14.1 Mio. for infrastructure (see Figure 13)⁴³.

⁴³ The information available from the financial archives of SDC and Helvetas do not distinguish expenditures for HRD-support and infrastructure for individual years. It is known, however, that of the overall expenditures of the PEP-Phase 1989-1995 an average of 45 percent has been spent for infrastructure and material. Thus, table 13 demonstrates this average proportion for the years 1993-1995. From the year 1996 onwards, disaggregated costs for HRD-support and infrastructure are shown according to their yearly occurrence in the project accounts.

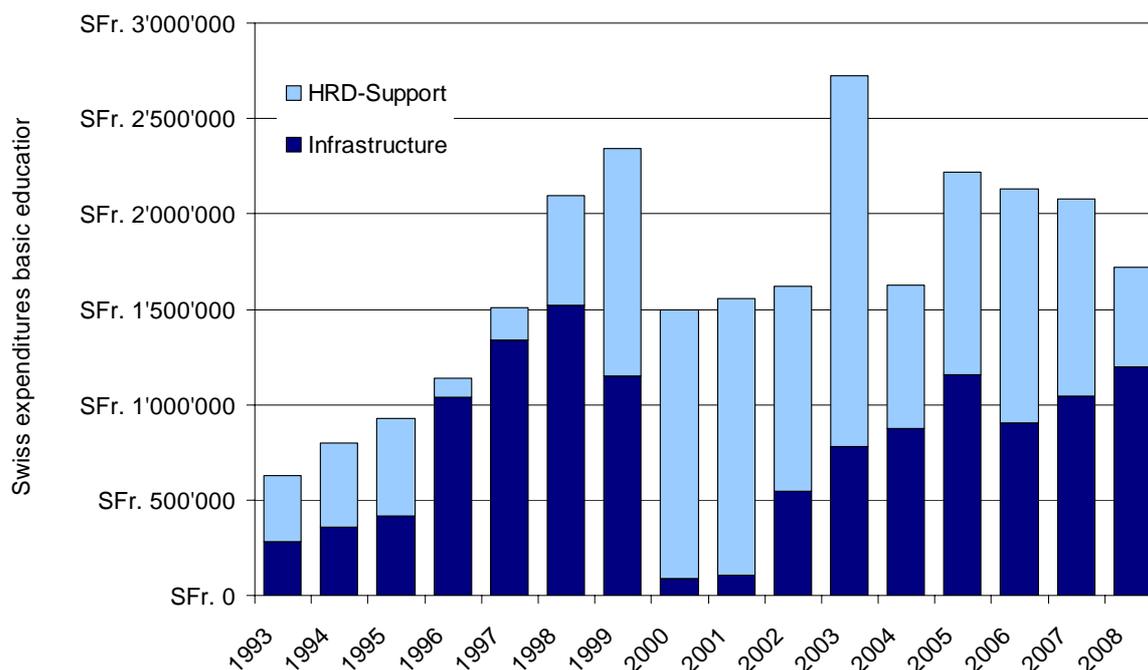


Figure 13 SDC/Helvetas expenditures for the basic education projects in Bhutan, 1993-2008, disaggregated for HRD-support and support to infrastructure (Source: SDC)

Although the **contribution of SDC/Helvetas to education in Bhutan** has more than doubled from the 7th FYP to the 9th FYP (from CHF 5'001'100 to CHF 10'781'200), the share of SDC/Helvetas contributions of the overall education expenditure of the RGoB has decreased from 7.1 percent during the 7th FYP to 6.4 percent during the 8th FYP and 3.8 percent during the 9th FYP (see Table 9). This is a result of the very high increase of Bhutanese education expenditure in relative an absolute numbers from 11.2 percent or CHF 70'547'167 (Nu. 1'738.0 Mio.) during the 7th FYP to 14.6 percent or CHF 283'153'983 (Nu. 10'209.4 Mio.) during the 9th FYP (see Table 8 and 9).

Table 9 Contribution of SDC/Helvetas to the overall education expenditure of the RGoB⁴⁴

	7 th FYP 1993-97	8 th FYP 1998-02	9 th FYP 2003-07
RGoB education expenditure in Nu. in Mio.	1'738.0	4'025.0	10'209.4
RGoB education expenditure in CHF	70'547'167	141'277'641	283'153'983
Contribution of SDC/Helvetas in CHF	5'001'100	9'105'800	10'781'200
Share of SDC/Helvetas of RGoB education budget	7.1 %	6.4 %	3.8 %

Other donors have also supported education in Bhutan. A comprehensive overview, however, was not provided during data collection in Bhutan. From various sources, the following incomplete and somewhat inconsistent list of activities of other donors in basic education was compiled (Helvetas

⁴⁴ Exchange-rate for Nu. provided by Helvetas Bhutan for every year for 1993-2007, calculation based on the average exchange-rate for the periods stated; Contributions of SDC/Helvetas based on the data provided by SDC together with the ToR.

Bhutan, 2002; Schmucki, o.J., project list provided by Helvetas Bhutan during the consultants' mission).

Table 10 Support of other donors to basic education in Bhutan (various sources)

Donor	Projects / Areas of support	Period	Amount
WFP	School feeding programme	since 1980	
World Bank	Participation in PEP and SEP	1989-2003	US\$ 18.1 Mio.
	Education Development Project	2003-2009	US\$ 39.0 Mio.
UNICEF	Construction of community primary schools; non-formal education programme; special education programmes; advocacy; support to multi-grade teacher training and textbook production	since 1974	
	Teacher training volunteers	1988-1991	US\$ 5.5 Mio.
	Participation in PEP	1989-2003	US\$ 1.5 Mio.
UNESCO	Provision of HRD for teacher educator of CoE Samtse; support to development of a master plan for cultural and language studies		
Norad / UNESCO	Support to Teacher Training Institute	1984-1993	US\$ 1.6 Mio.
GOI	First Education Department	1992-1997	US\$ 1.2 Mio.
	Rehabilitation and construction of Primary Schools	2003-2007	US\$ 17.0 Mio.
JICA	Support to education in the schools through provision of volunteer expatriate teachers		
Danida	Short term assistance since mid 1990s: support to CAPSD, youth centre and text book purchases; environmental education, piloted special education, piloted and supported light gauge steel frame construction technology	2003-2008	€ 11.5 Mio.
CIDA / Canada	HRD for Bhutanese teachers at the University of New Brunswick; Canadian teachers in Bhutanese schools		
	Establishment of Canadian coordination office: supported over 104 small projects: procurement of equipment for rural primary schools and for high school science labs; building and renovating girl's dormitories at two institutions; in-service training for teachers and headmasters; production and printing of locally written textbooks and storybooks; library development; support for establishment of Youth Development Fund; provision of solar power in remotest schools.	1984-2008	Can\$ 2.5 Mio. ⁴⁵
	Education leadership project (training of head masters); technical assistance in curriculum development	2003-2007	US\$ 5 Mio.
Safe the Children US	Construction and rehabilitation of community primary schools; support to multi-grade teaching; scholarships for disadvantaged children		

⁴⁵ not including technical assistance in curriculum development

Looking at the donors in the basic education sector during the 9th FYP (2003-2007), **SDC/Helvetas belonged to the most important donors in terms of financial contribution**. After the World Bank (US\$ 39 Mio.), the GOI (US\$ 17 Mio.) and Danida (~ US\$ 10 Mio.), SDC/Helvetas contributed around US\$ 8.7 Mio. (information provided during an interview with the MoE).

The projects and programmes of these donors to education were well coordinated. The Swiss projects started at a time when the RGoB realised that donor coordination was important. The RGoB clearly took over the coordination of donors in education. The Bhutanese partners steered the contributions of the various donors, preventing inefficient and ineffective overlaps of donor activities and ensuring the alignment of the projects to the policies formulated in the FYPs. The results of this quite strict steering process were twofold: (1) SDC/Helvetas projects were **fully aligned** with the national education priorities of Bhutan; (2) The **ownership** of SDC/Helvetas projects was **clearly with the MoE** – this was underlined by all interviewees without any relativisation.

In the beginning of PEP it was decided together with the RGoB that a common programme of the different donors in basic education should be conducted. PEP and SEP were hence designed as **common project of the World Bank (IDA), SDC and Helvetas** with a common arrangement, shared analysis and common missions. In addition, the projects were always fully aligned with the policies of the RGoB (the FYP) because the GNH-commission (former Planning Commission) had to agree to every new project. Besides, the projects also were embedded in the given structures of the Bhutanese education system with no parallel structures having been established to implement them. Hence, PEP and SEP were **very innovative projects** by that time, having reached standards that were formulated only twenty years later. They already fully conformed with the Paris Declaration (OECD, 2005).

The approach chosen, however, was **not without challenges**. (1) The cooperation of a multilateral, a bilateral and a non-governmental organisation (the latter usually rather acting as opponent to the first) was delicate. But the cooperation has turned out to be very good due to a continuously intense cooperation, the stability of personal relations that enhanced a pragmatic and open communication, the sharing of all relevant and even internal documents as well as the readiness to enter compromises (e.g. for reporting). (2) The integration of the project into the regular education and government structures has limited the absorption capacity. The Bhutanese partners had to do the work for the project “besides” their regular job what sometimes limited their contribution to the project to the periods of consultants’ mission. This has, among others, led to some delays in project implementation.

Although the projects and programmes of different donors were well coordinated and hence overlaps or contradictions mostly avoided, donor **coordination is assessed by most donors of having had a potential for optimisation**. The reason is that the “RGoB has traditionally worked separately with individual donors according to its needs” (UNICEF et al., 2009, p. 15). Hence, donors often did not formally talk to each other directly to optimise coordination. But the smallness of Bhutan has contributed to a certain direct communication and coordination and recently, the GNH-Commission has put donor coordination on its activity list.

In short:

- The RGoB has always allocated a considerable share of around 10 percent of the overall budget to the education sector.
- SDC/Helvetas has contributed a total of CHF 26.6 Mio. to basic education in Bhutan between 1993 and 2008, CHF 12.5 Mio. for HRD and CHF 14.1 Mio. for infrastructure. This counts for a share of 7.1 percent during the 7th FYP, 6.4 percent during the 8th FYP and 3.8 percent during the 9th FYP of the overall RGoB education budget.
- SDC/Helvetas belonged to the most important donors to basic education in Bhutan in terms of financial contribution.
- The perception of donor coordination is very homogeneous among different interviewees: The RGoB has the leadership in defining donor activities but works separately with individual donors according to its needs. Recently, however, the GNH-Commission put donor coordination on its agenda.
- SDC/Helvetas projects were fully aligned with the national education priorities of Bhutan and the ownership of the projects was clearly with the MoE. Adding the common project approach with IDA and UNICEF, the Swiss projects may be assessed as very innovative, complying with the Paris Declaration that was formulated almost twenty years after the Swiss designed there approach in Bhutan.

4.3 Perceptions of quality improvement of education administration and up-scaling

“We have a structure of education administration that functions as a good support system to schools.” (Interviewee)

The work of the education administration has much changed in the last 15 years. The large increase of the basic education sector has resulted in **new demands for education administration**. The Ministry of Education needed to differentiate and specialise its structure (more departments, additional services and especially bring them closer to the very scattered schools in Bhutan) and professionalise its offers (reformed procedures, specialised staffs). The expansion of the education sector also needed an increasing number of staff in education administration.

SDC/Helvetas projects have considerably contributed to improve education administration in terms of quantity and quality. **PEP and SEP have provided fellowships and supported trainings** for staffs at central and regional level (see chapter 3.2.2). In addition, DEOs and head masters of schools (see chapter 3.2) have been upgraded professionally through the Swiss projects (DoE Bhutan, 2001, p. 17). “Since 1991, the DOEs and the heads of schools were attending seminars on an annual basis in different groups. In 1997 this turned into the Annual Education Conference.” (Dorji, 2005, p. 38)

PEP and SEP also enhanced education administration through the arrangement that all project-financed activities were managed as part of the regular functioning of the MoE and DOE. “This has had an effect on the long-term development and improved functioning of the education sector in Bhutan which cannot be underestimated.” (LaPrairie, 2006, p. 6) Some interviewees also assigned an important contribution for the quality of education administration to the provision of vehicles at the beginning of PEP. “This really helped a lot for keeping the contact with schools.” (Interviewee)

from MoE) In addition, the Swiss projects have also supported some software development, e.g. the Personal Information System (PIS) of which a new version is in preparation and the “Construction Manager”, a software that is in the meantime used by all Ministries of the RGoB.

With this support SDC/Helvetas projects have also **contributed to decentralise the education administration**. The Dzongkhag level was very much strengthened (more and better qualified staff). This facilitated the introduction of an improved decentralised monitoring system. In addition, support services to schools were brought closer to teachers and head masters and thus being more effective. Among others, class VI examinations and class IX and XI admissions have been placed at Dzongkhag level (DoE Bhutan, 2001, p. 16). The higher competences at local level have also considerably enhanced the broad consultation processes that the MoE has introduced (institutionalisation of the Annual Education Conference since 1997 for annual consultations with schools, Dzongkhags and central level) to better streamline its reforms to the needs of schools.

This support is said to have contributed to the **high quality services the MoE is offering today at central and regional level**. Stakeholders in schools mentioned, that they are well informed about where to receive support and that they get support if they are in need of it. However, in a study by CERD (2007) 24.3 percent of teachers state that they are rarely or not satisfied with the support at Dzongkhag level and 23.3 percent with the one on ministry level. Interviewees, however, generally stressed that the MoE today has a cadre of highly skilled, specialised and dedicated professionals.

Although the Swiss projects have considerably contributed to the quality improvement of education administration and its services, the **overall good public sector management in Bhutan was pivotal** to achieve the advancements stated. It has allowed education sector officials to remain within their respective fields of specialisation, while moving along a career ladder to foster professional growth and sustain motivation.

In short:

- PEP and SEP have considerably contributed to the enhancement of personnel of education administration on central and local level in terms of quality and quantity through provision fellowships and support to trainings.
- The Swiss projects also provided some tools that have enhanced education administration.
- Today, the Bhutanese education administration offers high quality education services at central and regional level, further develops them in a participatory manner (institutionalisation of an Annual Education Conference) and provides them in a decentralised structure. Schools thus feel well supported by the education administration.
- The advancements, however, could only be achieved thanks to an overall good public sector management in Bhutan.

Epilogue to chapter 4.3: The question on whether any elements of SDC/Helvetas projects have been up-scaled, replicated or found interest of other countries (see ToR, annex 1) rather raised cluelessness with the interviewees. On the one hand, certain elements were attributed to very different donors or Bhutanese institutions/persons⁴⁶ and on the other hand cooperation in Bhutan was very participatory making the attribution of certain initiatives to specific stakeholders difficult and very much dependent on individual perception preferences. Thus, only four elements (from three interviewees) were mentioned as **having been up-scaled or replicated**: (1) some teaching-

⁴⁶e.g. the introduction of multi-grade teaching was attributed to the Swiss, Australians, Danish, and Canadian

learning material produced in cooperation with the Swiss has been revised several times, was widely spread (the “Swiss leaflet” even to a technical school in Nepal) and some has been translated into German to be used in teacher education in Switzerland (see also chapter 3.5); (2) the approach of continuous education is said to have been taken up by other ministries; (3) A group of Bhutanese experts was invited to conduct a workshop on continuous formative assessment (CFA) in Laos; (4) the CoEs are definitely perceived as the centres of excellence for teaching skills and could thus establish the “Centre for University Learning and Teaching” that offers a programme for University lecturers that is compulsory for all RUB lecturers.

4.4 Sustainability of SDC/Helvetas’ assistance

“The HRD we will sustain, that’s no problem. We have plans and they will be financed from the government budget. Also infrastructure should be maintained, we should be able to do it.” (Interviewee in a leading position)

The sustainability of the SDC/Helvetas projects’ outcomes **can be assessed to be highly likely**. First of all, the approach chosen by SDC/Helvetas to support basic education did not cover any running costs and thus respected a central principal of sustainable projects.

Second, the **RGoB is very much committed** to achieving EFA and MDG goals. Its Education Sector Strategy for achieving Bhutan’s Vision 2020 provides a framework of development principles aimed at improving the quality of life of Bhutan’s citizens (MoHE Bhutan, 2001). All this is reflected in its very ambitious 10th FYP for the years 2008-13 (GNH Commission, 2008). Hence, RGoB is ready to cover the costs that are needed to sustain the achievements of the Swiss projects in basic education.

Third, the huge investment of SDC/Helvetas projects in HRD was not only very effective (the majority of persons trained has come back to Bhutan and/or stayed in education) but has also yielded into **a critical mass of well trained and qualified people** in education administration as well as in the two Colleges of Education. They are believed to be able to further develop education and to take up the initiative needed. This is for example reflected in the fact that education has reached the front-page of the newspapers in Bhutan.

Forth, SDC/Helvetas projects also supported a sustainable **improvement of the professional capacities of teachers** through reforms of the pre-service education programmes, curriculum revision of CoEs and facilitation of comprehensive human resource development planning that are reflected in the 10th FYP of the RGoB.

Fifth, the **teacher shortage** that continues to be one of the system’s most significant constraint for improving both access to and quality of education **can now be addressed through the expanded facilities** available at Bhutan’s two CoEs and through the use of apprentice teachers. Although some teacher educators expressed worries about the maintenance of the infrastructure (mainly future investments necessary for ICT and library resources), interviewees from the MoE or RUB were very confident that the RGoB will provide the needed resources.

Sixth, most new policies, curricula and methodological approaches developed with the support of SDC/Helvetas projects on different levels (see chapter 2, 3, 4.1, and 4.3) can be assessed as sustainable. They have been well aligned with the local priorities and were developed in close coop-

eration and under wide consultation of local stakeholders. “The approach was always doing it together, we were always heavily involved and we knew what we were doing.” (Interviewee) As a result of this approach, most of the components funded under the Swiss projects have been **successfully implemented into practice and are being further improved and/or expanded**.

Although the overall sustainability of SDC/Helvetas projects can be assessed as very high – and this assessment was shared by all interviewees except of some fears of getting enough resources for sustaining the special facilities at the CoEs – the majority of interviewees stressed **that the cooperation of Switzerland and Bhutan in basic education should not end**.⁴⁷ As some interviewees formulated it: “The Swiss should stay longer. The academic cooperation was always very, very good.” “We hope that Helvetas would stay in the education sector. Swiss shouldn’t get out now that Bhutan is in such a vulnerable position.” “If Swiss would leave now that would be as if a husband leaves his wife and his children that are not yet grown up.” These statements stress two perspectives: (1) The cooperation of Switzerland and Bhutan was more than a technical cooperation. Both parties felt the cooperation as having been based on much trust, genuine interest and friendship; (2) The implementation of the very ambitious 10th FYP has a clearly outlined budget for which funds are still not secured. Thus, much support is still needed to continue the success story of basic education in Bhutan.

In short:

- The sustainability of the SDC/Helvetas projects’ outcomes can be assessed to be highly likely.
- Reasons that lead to this assessment are (1) that the Swiss projects did not cover any running costs; (2) that the RGoB is very much committed to further develop basic education; (3) that a critical mass of well trained and qualified people are working in basic education; (4) that the professional capacities of teachers can be continuously improved; (5) that teacher shortage can be addressed; (6) that most new policies, curricula and methodological approaches are successfully implemented into practice and are being further improved and/or expanded.
- Most interviewees, Bhutanese and Swiss alike, are of the opinion that the cooperation in basic education between Switzerland and Bhutan should continue.

⁴⁷ Interviews were full of contradictions when it came to the termination of the Swiss projects in basic education in Bhutan.



5 Conclusions and recommendations

“If the Swiss projects would not have been there, we could not have improved teacher education that much in terms of quantity and quality.”
(Interviewee)

The impact assessment (IA) has looked at the contribution of SDC/Helvetas projects for pupils and graduates of primary and secondary schools (chapter 2), to teacher education and training (chapter 3) and to the national education sector and system (chapter 4). This final chapter will draw general conclusions on the impacts identified (chapter 5.1), outline what has been perceived by different boundary partners and stakeholders as particularly valuable on the one hand and less helpful on the other hand (chapter 5.2), state some lessons learned (chapter 5.3), and finally suggest recommendations that can be deduced from the IA (chapter 5.4).

5.1 Conclusions

SDC/Helvetas projects have achieved a substantial impact on the provision of quality primary and secondary education to an increasing number of boys and girls in Bhutan and thus considerably supported the RGoB in achieving the MDG 2 “all children, boys and girls alike, will be able to complete a full course of primary schooling” and the MDG 3 “eliminate gender disparity in primary and secondary education”.

The projects have contributed to all relevant key areas for providing Quality Education for All that are well “distributed schools equipped with adequate infrastructure and materials, located in close proximity to children’s homes, staffed with adequate numbers of qualified teachers.” (World Bank, 2009, p. 5) The main impact, however, was targeted and achieved by substantially and on a long run reducing the shortage of qualified Bhutanese teachers – generally the most significant constraint to the access to and quality of education. Thanks to the Swiss support, the two colleges of education have become centres of excellence for teaching and learning with competent staff, consistent quality management and facilities for an intake of around 1’000 pre-service or in-service teachers.

The sustainability of SDC/Helvetas projects can be assessed as highly likely. The projects have not taken over any running cost but provided much human resource development and necessary infrastructure. As a result, required facilities are available and a critical mass of education staff has gained substantial and specialised competences and thus is able to further maintain and develop services in education.

Overall, the contribution of Switzerland to the Bhutanese education budget was not very big in share but in quality and thus impact. SDC/Helvetas projects can be assessed as very successful. However, the achievements would not have been possible without the extraordinary commitment of the Bhutanese partners on all levels to improving education in Bhutan.

The assessment of the Swiss projects may seem quite uncritical to the reader because hardly any negative points are outlined. There may have been a slight bias of most interviewees due to the announced end of the cooperation between Switzerland and Bhutan in education that seems to have been appreciated by everyone. Nevertheless, the projects really seem to have been exemplary, especially due to the very professional and thoughtful long-term approach sustained by all partners.

5.2 What was particularly valuable and what to a lesser extend

Many small and big elements of SDC/Helvetas projects were assessed by interviewees and in project reports as having been valuable. Clustered to main aspects, the **particularly valuable** elements of the Swiss assistance were the following:

- The Swiss assistance was well **aligned** with the development needs and policy priorities of the RGoB, illustrated by the fact that its components reflected major parts of the Bhutanese FYP for education. This has led to a clear ownership of the Bhutanese partners and thus much enhanced the effectiveness of SDC/Helvetas' support.
- The co-financing arrangement and thus the **coordinated** approach chosen in 1989 between IDA and Switzerland for PEP and SEP are not only judged as having been effective but also as having been very innovative and ahead of the time (a laudable example of the implementation of the Paris Declaration that was launched in 2005 only).
- The **long-term** cooperation (twenty years) with substantial financial contributions in much the same areas has produced significant, relevant, visible and sustainable results. In addition, as one Bhutanese interviewee put it, "we experienced a lot of quality in the cooperation with the Swiss, they were very much taking care, insisted on things to be done well and we assimilated some of this quality approach over the years."
- The attentiveness and **flexibility** towards the needs of the Bhutanese partners has not only enhanced mutual trust and respect but also facilitated down-to-earth adaptations of the project if there was need and thus mostly enhanced effectiveness of the assistance.
- The substantial share of **HRD** has much contributed to institutional capacity strengthening at the colleges of education and the school administration at central and regional level and thus noticeably uplifted the overall competences in the education system.
- Very much appreciated was the combined provision of software (HRD) **and hardware** (infrastructure), the latter not only contributing to increased intake capacities of CoEs and schools but also providing an environment that facilitates teaching and learning.
- The approach of **PITT** with its long-term academic cooperation of equal partners that are mutually learning was not only much appreciated by all stakeholders involved but has also resulted in sustainable outcomes.
- Last but not least did Swiss and Bhutanese interviewees alike stress the warm and **respectful** cooperation between Swiss and Bhutanese partners as very valuable, a cooperation that was "not clinical and mechanical" but "a deep friendship".

Rather few elements of the Swiss support have been reported or said to have been **less valuable**. An exemplary statement of one interviewee is: “Nothing was less valuable. It was an absolutely enriching cooperation.” Some aspects that much had to be searched for between the lines or rather teased out of the interviewees were the following:

- The **selection** of persons benefiting from fellowships financed by the Swiss projects was said to have been suboptimal in a small number of cases. Some teacher educators are felt to be not sufficiently motivated, mature or skilled.
- The **selection** of PITT-partners and especially STEP-consultants to support the developments at the CoEs was also said to have been suboptimal in few cases. E.g. some consultants were said to have had the wrong qualification for the mandate/workshop assigned and few lecturers of the TTC Zurich/PHZH were felt to have either not much contributed or not displayed sufficient intercultural sensitivity. “They should not dictate the condition prevailing in Switzerland as they may not be applicable in Bhutan due to different environment and level of development.”
- SEP was felt to have been **overloaded** with its various components addressing construction, teacher education, education in schools, and school administration. “The number of activities was many so that quality of it was sometimes compromised.” However, the partners learned their lessons and designed a more focused concept for STEP.
- The changed approach of STEP for the **academic cooperation** of the CoEs was felt to be less effective than PITT. The numerous changes of partners/consultants, the time restrictions and pressure put on the cooperation by paying the consultants an honorarium and thus introducing inequalities and attracting other types of Swiss partners led to a lower satisfaction of partners on both sides during STEP.
- Some interviewees questioned the **fast education expansion** that was also facilitated by the Swiss projects (without blaming anyone! – “Everybody was running for the MDG”). The increasing youth unemployment and the “head that is too big for the body” produced by the much academically oriented education system much worries policy makers and the population alike.

In addition, institutional changes and much alteration in personnel in Bhutan have affected STEP. The integration of the CoEs into the newly established RUB and the foundation of the first parliament in Bhutan have absorbed much capacity and thus constrained the project implementation. Nevertheless, the set objectives were achieved but the project phase had to be prolonged what was not a problem for the Swiss partners with their flexible approach.

A delicate issue in Bhutan was and still is the equity question. Whereas gender equity in education has made huge progress and the problem of providing education to children in remote and very remote areas is being addressed (but stays a challenge), the education of ethnic minorities is hardly ever a subject to any discourse in Bhutan and thus makes it difficult for everybody involved to tackle it. Whereas for the Swiss partners the education of ethnic minorities was always of major concern, Bhutanese partners rather denied any problem in this area. This demanded much balancing competences from the Swiss in following on their ideals for more equity and at the same time respecting their Bhutanese partners and not endangering the good cooperation.

5.3 Lessons learned

Several elements of SDC/Helvetas' projects should be taken into consideration by planning and implementing future bilateral development projects (see also 5.2 "What was particularly valuable"). Most important to achieving good results may be the following issues:

- The projects' design much benefited from **thorough preparation and broad consultations**. It was well embedded in local priorities (**alignment**) and showed a good level of coordination with other activities in the field (donor coordination).
- The co-financing arrangement between IDA and Switzerland was effective but challenging and worked due to **stable personal relations, open communication and flexibility** of all partners involved.
- The projects' development objectives were very relevant to the development needs of Bhutan. Not only education as a whole was and is a **priority development area** for the RGoB but good teachers are perceived by the Bhutanese as *the* factor for good education and social development. This much contributed to the strong ownership and support by the RGoB and the Bhutanese boundary partners.
- The success of the projects was very much also a result of the **extraordinary commitment** of the Bhutanese partners and **good governance** of the project and education system as a whole.
- **Investing in teacher education** can produce immense impacts on a society. More and better qualified teachers enhance the availability and attractiveness of education, improve knowledge and skills of future generations and promote cultural and social integration. These effects are, however, only visible at a long run, not easy to capture and thus often prevent decision makers of supporting them.
- The **long-term approach and the substantial contribution** of SDC/Helvetas facilitated the cultural change necessary for effective and visible improvements in (teacher) education.
- The projects much **invested in partners and their capacities** (rather than in outputs). E.g. the PITT-approach led to much trust, friendship and thus genuine common development. This has turned out to be very effective on a long run.
- The combination of providing a good **mix of software and hardware** with a flexible approach has facilitated a comprehensive development of teacher education as well as basic education and much contributed to its sustainability.
- The **high quality approach** chosen by the Swiss projects – solid, nice, functional, traditional, and modern buildings as well as the use of high quality training programmes to build capacities in specialised fields – has increased impact and much enhanced sustainability of the assistance.
- The effects of PITT on **institutional capacity strengthening** in teacher education in Switzerland were not intended and thus rather marginal. With little additional efforts (e.g. support in establishing a long-term institutional partnership) the academic cooperation and its effects in Switzerland could have been much enhanced.

5.4 Recommendations

5.4.1 Recommendations for SDC/Helvetas

SDC considered Bhutan to be a priority country from 1983 to 2006. In recent years, SDC has cut its budget for Bhutan and, starting in 2009, will channel available funding to only a few projects.

In 2009, SDC/Helvetas assistance to basic education in Bhutan is coming to an end after twenty years of support. The Swiss projects in the education sector can be assessed as successful and sustainable. It is thus permissible to terminate the support to basic education in Bhutan.

Nevertheless, necessary further developments of the education sector in Bhutan will be a challenging issue for the RGoB. On the one hand, Bhutan now has a critical mass of well trained and qualified education experts that are able to further develop the Bhutanese education system in terms of structure, content and procedures. But on the other hand, Bhutan still belongs to the LDC although it has been progressing from HDI-rank 155 in 1995 to rank 133 in 2005. The challenges for Bhutan thus are much in getting sufficient financial resources for implementing the education strategy stated in the very ambitious 10th FYP. And these further developments are important in order to not to provoke a backlash and thus for example losing the well trained and motivated education staffs.

These circumstances may allow SDC/Helvetas to reconsider a further support to basic education in Bhutan. A future assistance could be confined to budget support in the education sector, probably with earmarked funds for areas such as:

- Construction and/or expansion of schools in remote and still disadvantaged areas;
- Provision of fellowships to (future) teacher educators and school administrators;
- Provision of INSET to teachers⁴⁸;
- Library support to CoEs;
- Support to expansion of vocational training opportunities and skills development programmes especially at secondary school level.

The assistance to teacher education has shown to be very relevant and effective. For future bilateral cooperation with other countries, SDC may consider addressing its support also to basic education in general and teacher education in specific especially in the light that SDCs' contribution to achieving the MDG 2 is still marginal. The lessons learned outlined above (see chapter 5.3) may be of help in designing adequate and effective assistance to education in other countries.

5.4.2 Reflections for stakeholders in education in Bhutan

After having experienced the high competences and unique commitment of the personnel working in the education sector in Bhutan, the author perceives it as inappropriate to formulate any recommendations to education experts that have a much more detailed knowledge of their education system and cultural traits than the author herself could gain after having done a research with only three weeks in-country experience. Therefore, only reflections will be outlined in this chapter that

⁴⁸ that will not only enhance teaching skills but also keep-up motivation of teachers and increase attractiveness of the teaching profession

provide kind of a bird's-eye-view on education discourses in Bhutan from an external expert aiming at best to inspire further education reform discussions in Bhutan.

- **Looking at achievements or blaming the shortcomings?** Several recent studies and reports on education in Bhutan very much focus on the shortcomings in education although education has achieved huge positive developments in the last decades and years. Only stressing what still needs to be improved (what is always and everywhere a lot) may discourage stakeholders in education. People generally like to be proud of what they have and where they work. Motivation to engage for education can be kept up by acknowledging achievements and suggesting *realistic* next steps to go.
- **Bhutan, India or Finland as a benchmark?** A similar area of reflection is addressed by the questions about the benchmark(s) for education in Bhutan. Several reports state that Bhutan would want “to educate Bhutanese to world-class levels” (e.g. ESRC, 2008, p. 8) and/or state as one of the benchmark the education system in Finland⁴⁹ (e.g. iDiscovery Education et al., 2009). The crucial question, however, may rather be for what kinds of life students have to be prepared and that will – for the majority of Bhutanese children – still be a happy life in Bhutan. And a happy life is much about working and earning oneself a living, participating in society and political decisions and being a good family member. Thus Bhutan's social and economic environments and the GNH may be the best and major benchmark for formulating educational standards, other education systems rather serving as inspiration of how then education services could be designed.
- **Cognitive development or values and attitudes?** Schools produce much more than academic achievement in Languages and Mathematics. By only measuring cognitive developments, schools may lose their aspirations to enhance wholesome education that contributes much to social and cultural integration in Bhutan.
- **Cultural identity or cultural ignorance?** Bhutan is a multilingual and multicultural society with a rich heritage of various traditions (e.g. the Buddhist way of learning with Chökey as the language of instruction, see Phuntsho, 2000). And schools always produce much culture, whether they want or not. However, the multicultural component of society and the multilingual background of pupils receive rather little attention in education developments, although most pupils have to learn two foreign languages in school. To enhance academic learning and strengthen cultural identity of students some very effective approaches have been developed in other countries that may be worth to be reflected to enhance education achievements in Bhutan.
- **Autonomy or integration?** In several recent papers about education in Bhutan, an insufficient level of school autonomy is mentioned as a general problem to improving education. But more autonomy not automatically leads to better schools but rather fosters social inequalities. Thus, the balancing act to find an optimal equilibrium between fostering freedom and sustaining integration should be carefully tackled.

Education is always about balancing between two (or more) poles, finding an appropriate solution for the specific educational situation in a unique cultural context like the one of Bhutan.

⁴⁹ Finland is a very wealthy, much equitable society with little hierarchies and salary differences. Only around 16 percent of the population is younger than 15 years. The school population is mainly monolingual because a separate education system is offered to ethnic minorities. Thus, the socio-cultural environment of schools in Finland is extremely different to the one in Bhutan. To offer an education system similar to the one in Finland, Bhutan would for example need around 16'000 primary and secondary school teachers.

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Photos: Priska Sieber, except for the photo on the cover page right (Source: UN Newsletter Bhutan, Vol. I, Issue 1, October 2008, p. 4.)

- Chapter 1: Front of the Royal University of Bhutan in Thimphu
- Chapter 2: School yard of Changmari Community Primary School
- Chapter 3: Premises of the College of Education in Paro
- Chapter 4: Ministry of Education in Thimphu
- Chapter 5: Prayer wheels on Clock Tower Square in Thimphu

Annex

Annex 1: Terms of Reference

1 Rationale

Assistance in developing teacher education was, for the last decades, a priority of the Swiss support to the Bhutanese government. In Bhutan, teacher education is provided by two National Colleges of Education (CoE). The engagement in the education sector by the Swiss Agency for Development and Cooperation (SDC) and Helvetas covers both construction projects as well as pedagogical programmes (total budget: 26.6 Mio. CHF). Besides the large investment made by SDC/Helvetas in constructing the National Colleges of Education at Paro, the government of Bhutan together with SDC/Helvetas, IDA and UNICEF embarked on the **Primary Education Project** (PEP, Phase 1: (1989)1993-1998).

It was followed by the **Second Education Project** (SEP, Phase 2: 1999-2003), also a joint venture of the SDC/Helvetas and the World Bank.

The project aimed at reducing the acute shortage of school infrastructure, increasing the number of primary/secondary teachers and expanding school enrolment. The four main components were: (a) Improving basic facilities through the construction and upgrading of eleven junior and high schools (for ca. 5,000 students); (b) teacher education; (c) improving the teaching-learning processes; (d) strengthening of management as well as administration at the central, district and school levels.

During the period of PEP and SEP, PITT (Partnership in Teacher Training 1989-2003) was an integral part of the SDC/Helvetas/WB Education Project.

The project **Support for Teacher Education Programme** (STEP, Phase 3: 2004-2008) follows this tradition of ensuring a twinned quantitative and qualitative development approach through its general **objective** of contributing to the development of the Colleges of Education into centres of excellence which provide quality teaching/learning services to their teacher students and the teachers in Bhutan making them proficient in imparting skills, knowledge and attitudes. It shall be addressed through five project objectives: professional qualification of teacher educators, quality of primary and secondary teacher education, ICT competences in learning and teaching at CoEs, youth guidance and counselling competences in teacher education, and CoEs as centres of excellence in teacher education.

The programme in the basic education section of Bhutan has been a long-term investment of SDC/Helvetas. This offers an excellent chance for impact (and outcome) assessment, as the measurement of impact usually requires quite a long programme period. There have been several mid-term and phase reviews/ evaluations during the last 15 years, but no assessment over the entire programme period so far.

2 Objectives

The ultimate purpose of the impact assessment is to capture and analyse the impact of the basic education projects of SDC/ Helvetas in Bhutan in order to establish evidence on the effects of the project (accountability), and, to a certain extent, also to extract lessons learnt for future project steering and design of new projects (organisational learning).

The main objective of the impact assessment is to establish and analyse the project's **impact on the basic education system and situation in Bhutan**.

This includes

- the impact for the pupils and graduates of primary and secondary schools (**part A**),
- the impact on the teacher education and training (**part B**),
- the impact on the national education sector and system (**part C**),

taking inclusiveness (gender, vulnerable groups (e.g. refugees children, disabled children, children from remote areas), lessons learnt and the potential for up-scaling also into account.

3 Approach

3.1 Introduction

The impact assessment shall be mainly based on a comparison of the situation before the beginning of the first project (PEP, (1989) 1993-1998) and at the end of the last project (STEP, 2004-2008).

It is important to recognize that whenever long-term impacts of development programmes are of interest, the question of attribution arises. This applies also to the development of the basic education situation in Bhutan. The observed changes over time can, at best, only be partly attributed to the interventions of the SDC/Helvetas programme as there had been many other factors influencing the development of the basic education system during the observation period as well. These other factors include fast expansion of the coverage with primary and secondary schools, changes within the education sector (increases in the governmental education budgets, activities of other donors etc.) and changes outside the sector (economic and political situation of the country, internal migration, employment opportunities abroad, etc.). To the extent possible, the impact assessment will estimate the contribution of SDC/Helvetas. However, considering the complexity of interacting factors, attribution will be difficult.

Another point is the question of sustainability, which is usually an important part of impact assessments. In the case of SDC/Helvetas' support to the basic education in Bhutan no running costs were covered. Nevertheless, the question of sustainability shall be applied, e.g. when it comes to the application of new policies and curricula development, introduction of new methodologies, etc.

3.2 Assessment of the impact on pupils and graduates of primary and secondary schools (part A)

In the last 20 years, the different programmes have strongly invested in the education and training of new and existing primary and secondary school teachers with the primary goal of extending school enrolment and enhancing skills and knowledge of primary and secondary school graduates. Beside the "software" components (consultancies, scholarships, exposure visits, trainings, curricula and material development, etc.), it includes also a "hardware" component with the construction of new primary and secondary schools and the upgrading of existing schools with new equipment (computers, etc.).

The assessment shall consider quantitative aspects (statistical data on enrolment, graduation, etc.) as well as qualitative aspects (perceptions, teaching and learning culture and quality, etc.) given in Table 1.

Indicators (The indicators should show the development over the last 15 years)	Means of Verification
Accessibility / availability of primary and secondary education (disaggregated for gender, rural-urban areas, wherever possible)	
1. Overall literacy rate of adult population	Educational statistics
2. Number and rate of school enrolment	Educational statistics
3. Number and rate of drop-outs and repeaters and reasons	Educational statistics, interviews
4. Number of public and private schools and their location ((semi-)urban, rural)	Educational statistics
5. Number of new education places for pupils and school buildings due to construction of SDC/Helvetas, World Bank, others	Educational statistics Project reports, supplementary information from MoE
6. Utilization, maintenance and status of the existing infrastructural resources (primary and secondary school buildings built by SDC/ Helvetas) and their role as reference schools	Project reports, supplm. information from MoE, interviews, school visits
7. Accessibility to primary education for vulnerable groups	Educational statistics
Quality of education	
1. Perception of quality of education and learning atmosphere (e.g. application of participatory methods, didactical approach) in primary and secondary schools	Interviews with teachers and graduates and resource persons School visits Reports of MoE and other donors*
2. Class size in public school (or: student-teacher ratio)	Educational statistics
3. Proportion of students passing final examinations / achievement of minimal standards	Educational statistics Benchmark reports of Bhutan Board of Examinations (MoE)
4. Availability of teaching material	List of didactic material developed and purchased by the SDC/Helvetas projects Project reports, reports of the MoE* Interview and school visits
5. Public perception of quality of primary and secondary education	Reports of the MoE* Debate in newspapers Group discussions, interviews
Practical vocational relevance of secondary education	
1. Assessment of graduate quality by private industry (example call centres), government employees and tertiary institutions (e.g. CNR)	Available reports of the Ministry of Labour and Human Resources, and Department of Youth and Sports (to be searched for) Interviews Bhutan National Human Development Report 2005 (the challenges of youth employment)

2. Perception of practical vocational relevance of secondary education	Reports (see above), interviews, group discussions
3. Extent of youth guidance and counselling, extra curricular activities at secondary schools	Reports of the MoE, interviews, group discussions, analysis of secondary school curricula
4. Extent of absorption of school leavers and graduates into vocational education and training	Statistics - Ministry of Labour and Human Resources, and Department of Youth and Sports

* Reports such as: Annual assessment report, Bhutan board of education; World bank reports; Report Education sector review commission; Parliament Board of Examination, General Statistics/Policy and Planning Division; Bhutan MDG Needs Assessment and Costing Report (Planning Commission November 2007).

Table 1: Indicators (gender-disaggregated) related to primary and secondary schools, comparing the period of the beginning of the first project with the situation in 2008/2009 (end of project STEP)

3.3 Assessment of impact on the teacher education and training (part B)

In the last 20 years, the different programs have strongly invested in the education and training of primary and secondary school teachers. A main objective was to develop the Colleges of Education (formerly called National Institutes of Education) into centres of excellence which provide quality teaching and learning services to their teacher students and the practising teachers making them proficient in imparting relevant skills, knowledge and attitudes.

Beside the “software” components (fellowships, consultancies, exposure visits, trainings, curricula and material development, etc.), it includes also a “hardware” component with the construction of the two Colleges of Education.

The impact assessment shall consider quantitative aspects (statistical data on teachers educated and lecturers trained, etc.) as well as qualitative aspects (management improvements of CoE, institutional facilities, changes of attitudes, teaching and learning culture and quality, etc.) given in Table 2.

Indicators (The indicators should show the development over the last 15 years)	Means of Verification
Quality of education and learning atmosphere (e.g. participatory methods) at the Colleges of Education	
1. Duration of pre-service teacher education programmes at CoE	Reports of the MoE
2. Entry requirements for pre-service teacher education programmes at CoE	Reports of the MoE; statistics of CoE
3. Student-teacher ratio at CoE	Educational statistics; statistics of CoE
4. Perception of learning atmosphere, application of participatory methods and (self-)assessments, didactical competencies, etc.	Project reports, interviews and group discussions with teacher educators and graduates and resource persons; school visits at CoE
5. Availability and effectiveness of specialized facilities (libraries, computer lab, etc.)	Project reports, interviews with teacher educators and graduates; school visits at CoE

6. Effectiveness, relevance and sustainability of curricula and didactic and methodological tools and manuals	Interviews and group discussions with teacher educators and resource persons
7. Number and rate of lecturers at the CoE having received further training (e.g. through fellowships abroad) through PEP, SEP or STEP	Project reports, list provided by CoE/MoE
8. Effectiveness of fellowships (and current continuation of the fellowship system at the CoE)	Project reports, evaluation report "Impact of Fellowships abroad" (2001), interviews, and group discussions
Enhancement of teaching capacities at primary and secondary schools	
1. Number of primary and secondary school teachers, practising at schools	Educational statistics
2. Proportion of primary and secondary teachers with professional qualification	Educational statistics
3. Proportion of Bhutanese primary and secondary teachers practising at schools	Educational statistics
4. Number of studying places for teachers	Educational statistics
5. Number of additional studying places for teachers in the Colleges of education due to construction of SDC/Helvetas, others	Project reports, information from CoE
6. Utilization, maintenance and status of the existing infrastructural resources (CoEs built by SDC/ Helvetas)	School visits at CoE, interviews with teacher educators, graduates and school management
School management and administration at CoEs	
1. Number of CoE management, maintenance and administration staff trained	CoE statistics and reports (list provided by CoE)
2. Perception of management effectiveness and efficiency and of the cooperation between the CoEs	Interviews with teacher educators and resource persons
Attractiveness of teacher profession	
1. Number and rate of graduates of CoEs working as teachers (disaggregated for public and private schools)	Tracer study of Urs Dürsteler
2. Perception of attractiveness of teacher profession	Educational statistics (gender ratio) and salary lists; interviews with teachers and graduates of CoEs not teaching; interviews with resource persons; debate in the news media Study by Centre for Educational Research and Development (CERD)
Effects on teacher education and training in Switzerland	
1. Perception of effects on teacher education and training in Switzerland (especially through the long-term cooperation PITT between the CoEs of Bhutan and PHZH Switzerland)	List of activities conducted (to be compiled by PHZH); interviews with PHZH staff and other resource persons

	sons; interviews with Bhutanese partners
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Table 2: Indicators (gender-disaggregated) related to teacher education and training, comparing the period of the beginning of the first project with the situation in 2008/2009 (end of project STEP)

3.4 The impact on the national education sector and system (part C)

In the last 20 years, the different programs have strongly invested in the improvement of the overall education system and situation in Bhutan.

The impact assessment shall consider quantitative aspects (overall education budget and allocation, etc.) as well as qualitative aspects (curricula development, contribution to education policies and laws, etc.) given in Table 3.

Indicators (The indicators should show the development over the last 15 years)	Means of Verification
Budget allocation of SDC/Helvetas and other donors, donor harmonisation	
1. Contribution of the projects of SDC/Helvetas on national education policies and laws	Reports of MoE (analysis of education reforms), interviews with MoE staff and resource persons
2. Volume of overall education expenditures at primary, secondary, CoE and system level	Government accounts and statistics
3. Contribution (amount and share) of SDC/Helvetas to the overall education expenditures at primary, secondary, CoE and system level	Government accounts and statistics; Project reports; Project accounts
4. Activities / budgets of other donors (brief overview)	List provides by MoE
5. Perception of donor coordination (SDC/Helvetas/World Bank/Unicef, others)	Interviews with MOE staff, CoE staff and resource persons
Quality improvement and up-scaling	
1. Perception of selected stakeholders of quality, effectiveness and managerial skills of the Education Administration (MoE)	Interviews with Bhutanese education personnel on central (MoE, CoE) and regional level as well as with international experts and donors Interview with UNICEF Evaluation reports
2. Perception of selected stakeholders of improvement of education quality (disaggregated by Bhutanese and external views)	
3. Perception of selected stakeholders of ownership for project strategy and activities	
4. Perception of selected stakeholders of the Swiss investment in education by Bhutanese (what was particularly valuable, what to a lesser extent, main lessons learnt?)	
5. Up-scaling, replication and interest of other countries or players (concerning material, system approach, curricula, etc.)	

Table 3: Indicators (gender-disaggregated) related the national education sector and system, comparing mainly the period at the beginning of the first project with the situation in 2008/2009 (end of project STEP)

4 Methodology

4.1 Procedure

The study shall take into consideration information about the project and the context that already exists (project documents, evaluation reports, sector studies, general statistics of the area). On this basis, the study design, data collection, the sampling procedure and a work plan shall be elaborated and discussed with Helvetas (head office and local project team).

4.2 Learning event

The preliminary results shall be shared and discussed with the relevant stakeholders (representatives of the Ministry of education, CoEs, Helvetas staff, etc.) during a workshop in Bhutan. The workshop shall provide an opportunity for validation and interpretation of the results, for reflection on the project's impact and relevance.

5 Expected outputs

The impact assessment study shall produce the following outputs:

- 1) Learning event with the key stakeholders in Bhutan
- 2) Debriefing in Bhutan with Helvetas Bhutan
- 3) Comprehensive report with illustrations, key lessons learnt and an executive summary (max 3 pages)
- 4) Debriefing with SDC and Helvetas head office (one meeting)
- 5) Learning event(s) in Switzerland (presentation at Helvetas or SDC in Switzerland and for the Swiss education network)
- 6) Preparation of content (text, photos/ illustrations) for an Asia Brief brochure of SDC and Helvetas fact sheet (content identical, without layouting).

6 Team composition

Lead consultant Dr. Priska Sieber, IZB, PHZ, Switzerland (IC)

Support by the Programme Officer Tashi Pem, Helvetas Bhutan (PO)

Local consultant for the compilation of statistical data and further support (LC)

7 Tasks and time frame

The mission of the international consultant (IC) to Bhutan will take place from Monday, March 9th, 2009 (day of arrival) till Sunday, March 29th, 2009 (day of departure).

The following tasks shall be implemented:

Task	People involved	Deadline
1) Study available information; outline study design	IC	23.2.09
2) Discuss study design with Helvetas head office	IC, Helvetas head office	25.2.09
3) Interviews with resource persons in Switzerland	IC, stakeholders	week 10
4) Briefing with local stakeholders, finalize work plan	IC, PO, LC	9.3.09
5) Sample selection, finalize tools	IC, PO	9.3.09

6) Conducting interviews with stakeholders, processing results	IC, stakeholders	10.-25.3.09
7) Conducting school visits, documenting results	IC, stakeholders	10.-25.3.09
8) Conducting group discussions, documenting results	IC, stakeholders	10.-24.3.09
9) Preparing and conducting a learning event in Bhutan	IC, stakeholders	25./26.3.09
10) Compiling results, drafting SARs and conclusions	IC	27.3.09
11) De-briefing in Bhutan with the project team	IC, PO, LC, Helvetas Bhutan	27.3.09
12) Drafting report	IC	14.4.09
13) Debriefing with Helvetas head office and SCD	IC, Helvetas head office	week 18
14) Finalizing report	IC	week 19
15) Learning event at head office Helvetas	IC, Helvetas head office	May 2009
16) Compiling content for Asia briefs and Helvetas fact sheet	IC	May 2009

8 Resources

Estimated work days for the international consultant

Tasks	Work Days
Preparation work in Switzerland	7
Flight Switzerland - Bhutan	1 1/2
Field work in Bhutan	17
Flight Bhutan - Switzerland	1 1/2
Debriefing and finalizing report in Switzerland	7
Total work days	34

9 Possible resource persons

Resource persons in Switzerland
*Marianne Frei , PHZH, Leiterin Ressort Aufnahmeverfahren, Former consultant STEP, collaborator PITT
Walter Furrer , formerly PHZH, former director PHZH, Swiss project manager PITT
*Remo Gesu , Helvetas, Head of IP department
Els Heijnen , formerly Helvetas, former project advisor of STEP
*Werner Külling , formerly Helvetas, former Secretary General and Programme Director for Bhutan
Christian Rohrbach , PHZH, former consultant of STEP and collaborator of PITT
*Uri Trier , former consultant of PEP and SEP
Resource persons in Bhutan
Dasho Pema Thinley, Vice Chancellor (former education secretary, also chairperson of STEP project committee)
Aum Sangay Zam, Secretary Ministry of Education
Dasho Megraj Gurung
Mr. Yangka, Director, Academic Affairs, RUB

Mr. Gajel Lhendup, Director, Planning & Resources, RUB
Ms. Phuntsho Choden, RUB (former STEP project manager)
Directors, CoEs Paro and Samtse
Mr. Thinley Rinzin, Ministry of Education (former SEP project manager)
Mr. Tshewang Tandin, Director Department of School Education
Dr. Phub Rinchen, Secretary, BBE (was engaged in PITT)
Dr. Saamdu Chetri, Cabinet Secretariat, former Dy. Resident Coordinator (engaged in PEP, SEP)
Dr. Jakar Dorji, Member of Parliament, former Director of CoE Paro)
Mr. Karma Tshewang (former STEP project manager, also ICT focal person)
Mr. Rinchen Dorji, Office of the VC (former Paro CoE)
Mr. Sangay Jamtsho, Royal Education Council (former CoE Samtse)
Ms. Yangday Penjor, Director Youth Development Fund (was engaged in PEP and part of SEP)
Ms. Chhimi Pem, Ministry of Economic Affairs (was engaged in PEP and SEP)
Mr. Lyonpo Thakur Sing Powdyel , Minister of Education, former director of CERD
Mr. Dasho Jigme Zangpo, former coordinator of PEP
Mrs. Pema Lhazom. Former coordinator of SEP
Mr. Binod Sunwar, Ministry of Education (STEP coordinator)
Resource persons in other countries
Marc Laprairie, World Bank
Nancy Strikland, having been the Canadian Representative in Thimpu for more than 10 years

* have been informed about the IA and that an interview may be conducted with them

10 Annex

- List of selected reference documents
- Overview of programme expenditures SDC/Helvetas

Zurich, 23.2.2009

Christian Oswald and Bettina Jenny (Helvetas), with inputs from Markus Bürle (SDC), Sonya Elmer (SDC), Marianne Frei (PHZH), Franz Gähwiler, Remo Gesu, Fabienne Lagier (SDC), Chantal Neuweiler (SDC), Tashi Pem (Helvetas Bhutan), Walter Roder (Helvetas Bhutan), Peter Schmidt (Helvetas), Uri Trier and Priska Sieber (IZB)

Annex 2: Overview of the Swiss projects

Project	Description
PEP (1989/1993-1998)	<p>Primary Education Programme</p> <p>Common project of IDA (32%), UNICEF (11%), SDC/Helvetas (44%), and RGoB (13%)⁵⁰</p> <p>Increase access to basic education:</p> <ul style="list-style-type: none"> • Construct and equip 12 new primary schools • Expansion of teacher training capacity <p>Improve quality of teachers:</p> <ul style="list-style-type: none"> • Improving the quality of teaching through improved effectiveness of teacher education and training <p>Improve quality of education administration:</p> <ul style="list-style-type: none"> • Improving the quality of education administration at the central and district levels, particularly in the areas of curriculum development, student assessment, personnel management and education sector planning
Construction in Paro ⁵¹ (phase III, 1993-2000)	<p>Expansion of CoE Paro</p> <ul style="list-style-type: none"> • construction of 5 new classroom buildings, administration building, mess hall, library building, hostels and staff quarters to enable the increase of intake capacity of primary teacher students • put in place a maintenance concept and train project staff
SEP (1999-2003)	<p>Second Education Project</p> <p>Common project of IDA (65%), SDC/Helvetas (26%) and RGoB (9%)</p> <p>Increase access to basic education:</p> <ul style="list-style-type: none"> • Increase and upgrade facilities for basic education: Construct and equip 3 new schools providing classes PP-VIII and upgrade 9 existing schools • Expansion of teacher training capacity <p>Improve quality of teachers:</p> <ul style="list-style-type: none"> • Improvement of teaching quality in teacher training institutions (professional development of teacher trainers, review of curriculum, improving the quality of instruction in teacher training institutions) • In-service training through evaluation of in-service-training, in-service teacher training workshops, school-based in-service training programmes (SBIP) and multi-grade-teaching <p>Improve teaching and learning in schools:</p> <ul style="list-style-type: none"> • Curriculum development of schools and new education technologies • Assessment of learning processes and outcomes: i) continuous assessment (CA): review of actual practices; pilot models and methodologies; ii) revision of existing examinations, standardised testing • Resource Centres: Resource Centre facilities; utilisation models and procedures

⁵⁰ Figures in brackets: share of overall project expenditure

⁵¹ Previous phases of constructions of CoE Paro were phase I in the mid 1970's by UNESCO/UNICEF and phase II in the mid 1980's by SDC/UNICEF. In phase II, two hostels (one for female and one for male students) were constructed and some expansion work done at the old CoE Paro (then called TTC Paro).

	<ul style="list-style-type: none"> • Vocational-technical elementary skills • Supplementary Reading Programme: facilities, books provision, librarians training, evaluation <p>Improve quality of education administration:</p> <ul style="list-style-type: none"> • Central Level: Professional development, monitoring and supervision functions • Dzongkhag Level: Institutional capacity building (decentralised monitoring, supervision and inspection system) • School Level: School management, principals professional development
Construction in Paro and Samtse (phase IV, 2000-2009)	<p>Expansion/improvement of teacher education at CoE Paro and Samtse</p> <ul style="list-style-type: none"> • construction of additional infrastructure at CoE Paro (expansion of classrooms, construction of hostels, science labs, computer centre, lecture theatre, auditorium, reprographic/audio-visual and sports facilities) • construction of a computer centre at CoE Samtse • enhance the capacities to operate and maintain these infrastructures • develop the management capacities in the private construction sector in Bhutan
STEP (2004-2008)	<p><i>Support for Teacher Education Programme</i></p> <p>Improve quality of teachers:</p> <ul style="list-style-type: none"> • Qualifying teacher educators by scholarships and by CoE-internal staff training • Improving the quality of primary and secondary teacher education by developing NIEs' curricula, teaching materials, process-oriented M&E, theory–practice. Provide three-year courses for master teachers • Developing ICT in teacher education • Developing youth guidance and counselling (YGC) in teacher education • Improve management: CoEs as 'learning organisations'

Annex 3: Documents consulted

Project documents, reports, reviews, and evaluations on PEP

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Annex 4: Interviews, group discussions and school visits conducted

Persons interviewed

- Arjun Chhettri, Head of Mathematics Department at the CoE Paro, involved in PITT and STEP since 1990 (face-to-face interview, 18.3.09)
- Binod Sunwar, Program Officer at the Policy and Planning Division of MoE, involved in STEP project inception, STEP project coordinator at MoE 2006-2008 (face-to-face interview, 10.3.09)
- Bishnu Bhakta Mishra, Education Officer UNICEF (face-to-face interview, 12.3.09)
- Chencho Dorji, Chief Program Officer of the Programs Division of DSE at MoE (face-to-face interview, 10.3.09)
- Christian Rohrbach, Lecturer for Mathematics at the TTC in Zurich, 13 times in Bhutan in the frame of PITT and STEP (1991-2007), accompanied Bhutanese delegations in Zurich (telephone interview, 4.3.09)
- Dorji Thinley, Dean Academic Affairs CoE Paro, in teacher education at CoE Samtse and Paro since 11 years (face-to-face interview, 16.3.09)
- Dr. Gepke Hingst, UNICEF representative Bhutan, UN Resident Coordinator a.i., UN system in Bhutan (face-to-face interview, 12.3.09)
- Gyaltshen Penjor, Director of Royal Education Council that supports the RGoB in designing and implementing education reforms (face-to-face interview, 11.3.09)
- Dr. Jager Dorji, Director of CoE Samtse 1994-1997, Director of CAPSD 1997-2000, Director of CoE Paro 2000-2005, Coordinator of STEP Component 5 (face-to-face interview, 25.3.09)
- Karma Chewang, Head of ICT Department at CoE Paro, Coordinator of STEP Component 3, Project Manager STEP (face-to-face interview, 16.3.09)
- Karma Dyenka, Education Manager of Save the Children USA at Bhutan Program Office, secondary school teacher 1994-1995, fellowship in New Brunswick Canada 1996-1999, lecturer at CoE Samtse 199-2004, employed at EMSSD of MoE 2004-2007
- Karma Gyalley, Associate Lecturer of Dzongkhag at the CoE Paro, involved in PITT and STEP since 2002 (face-to-face interview, 18.3.09)
- Karma Jigyel, Lecturer of Mathematics and "Measurement and Evaluation" at the CoE Paro, involved in STEP since 2006 (face-to-face interview, 18.3.09)
- Karma Jurmi, Senior Program Officer of the School ICT Program of DSE at MoE (face-to-face interview, 10.3.09)
- Kesang Tshering, Director of CoE Samtse
- Kinzang Choden Roder, member of the Education Sector Review Commission (ESRC) 2006/07 (face-to-face interview, 11.3.09)
- Kinzang Lhendup, Chief Librarian, Lecturer of English and Research Methods at the CoE Paro, involved in PITT and STEP since 2001 (face-to-face interview, 18.3.09)
- L.N. Chhetri, Head of Arts & Humanities Department at CoE Paro, involved in PITT and STEP since 1989 (face-to-face interview, 16.3.09)
- Marianne Frei, Head of Admission Department at PHZH, Swiss consultant for PITT and STEP 1994-2008 (telephone interview, 7.4.09)

- Nancy A. Strickland, primary school teacher in East-Bhutan 1986-1989, involved in the teacher exchange programme between Canada (University of New Brunswick, UNB) and Bhutan 1989-1992, Coordinator at the Canadian Cooperation Office in Bhutan 1992-2008 (face-to-face interview, 10.3.09)
- Dasho Dr. Pema Thinley, Vice Chancellor of RUB since 2007, involved in PITT 1989-1997 as Director of CoE Samtse, then Director of CAPSD, Director of Sherubtse College, and General Director of DoE at MoHE (face-to-face interview, 11.3.09)
- Phuntsho Dorji, Head of Professional Studies Department at the CoE Paro, involved in PITT and STEP since 1999 (face-to-face interview, 18.3.09)
- Ramesh Thapa, Research Officer at the CERD of the CoE Paro (face-to-face interview, 16.3.09)
- Remo Gésu, Desk Officer of Helvetas for Bhutan 2000-2004 (telephone interview, 5.3.09)
- Richen Tshewang, Associate Lecturer of Mathematics at the CoE Paro, involved in PITT and STEP since 1999 (face-to-face interview, 18.3.09)
- Aum Sangay Zam, Education Secretray of the MoE (face-to-face interview, 23.3.09)
- Sangay Jamtsho, Royal Education Council, former teacher educator at CoE Samtse 1992-2007, Coordinator of STEP Component 4 (face-to-face interview, 25.3.09)
- Shukhrat Rakhimdjano, MD, PhD, Health and Nutrition Specialist UNICEF (face-to-face interview, 12.3.09)
- Singye N Dorji, Planning Officer at the Planning and Policy Division of the MoE (face-to-face interview, 23.3.09)
- Tshering Wangmo, Programme Leader of B.Ed. Programme at the CoE Paro, involved in PITT and STEP since 1989 (face-to-face interview, 18.3.09)
- Tshewang Tandin, Director of DSE at MoE (face-to-face interview, 10.3.09)
- Thubten Gyatsho, Director of CoE Paro, former Director of CoE Samtse, Coordinator of STEP Component 5 (face-to-face interview, 16.3.09)
- Werner Külling, former Secretary General of Helvetas (1973-2005), Resident Coordinator Helvetas in Bhutan 2005-08 (telephone interview, 2.3.09)
- Yangka, Director of Academic Affairs of the Royal University of Bhutan, lecturer at CoE Samtse 1993-2000, then employed at the MoE (face-to-face interview, 12.3.09)

Participants of group discussions

Group discussion with teacher educators from CoE Samtse (21.3.09)

- Delci C. Gyamtso, Dean Academic Affairs, in teacher education since 1991
- G. Ram Mohan, Head of Science Department, in teacher education since 1977
- Karma Galey, Head of Mathematics and IT Department, in teacher education since 1998
- Karma Gayphel, Head of Educational Psychology Department, in teacher education since 2007
- Karma Utha, Laboratory Management Programme Leader, in teacher education since 2000
- Kuenzang Gyeltshen, Head of Social Studies Department, in teacher education since 2003
- Lungten Wangdi, Head of Health and Physical Education Department, in teacher education since 2004
- N.B. Gajmen, PGDE Programme Leader, in teacher education since 1982
- N.B. Raika, M.Ed. Programme Leader, in teacher education since 1990

- Sonam Dorji W., Distance Education Coordinator, in teacher education since 2004
- Sonam Rinchen, B.Ed. Secondary Programme Leader, in teacher education since 1998
- Tashi Gyeltshen, Head of English Department, in teacher education since 2004
- Ugyen Pem, PgC/D in Higher Education Programme Leader, in teacher education since 2004
- Yang Gyeltshen, Head of Professional Development Department, in teacher education since 1999
- Yeshey Dorji, Chief Librarian, in teacher education since 1991

Group discussion with Bhutanese resource persons (24.3.09)

- Aum Yangday Penjor, Director of Youth Development Fund, in charge for foreign aid coordination in education in the 1980s till 1997
- Dasho Megraj Gurung, retired Dasho, former member of ESRC
- Dr. Saamdu Chetri, former deputy Resident Coordinator Helvetas (1988-2006)
- Dasho Jigme Zangpo, High Court Judge (Drangpoen), working for the MoE 1988-1999

Schools visited and persons interviewed

Visit of CoE Paro, 16./18.3.2009 (interviews see above)

Visit of CoE Samtse, 21.3.2009 (interviews and group discussion see above)

Visit of Drugyal Higher Secondary School in Dsento, Paro-Valley, 17.3.09 (boarding school, 1050 students, 38 teachers, 22 classrooms, 20 support staff)

- Interview with Wangchuk Dorji, Head master
- Group interview with teachers:
 - Pema Chhogyel, teacher for English and School Counsellor, PGCE-degree from CoE Samtse, teaching at Drugyal HSS since 2003
 - Lakey Wangmo, teacher for English and History, PGCE-degree from CoE Samtse, teaching at Drugyal HSS since 2004
 - Pema Chhogyel, teacher for Geography and Economics, PGCE-degree from CoE Samtse, teaching at Drugyal HSS since 2003

Visit of Ramechetsekha Community Primary School in Paro, 17.3.09 – This visit had to be cancelled due to road-construction; the school could not be reached.

Visit of Changmari Community Primary School in Samtse Dzongkhag, 20.3.09 (no boarding facilities, 574 students, 25 teachers, 15 classrooms, 1 support staff)

- Group interview with teachers:
 - Karma Dorji, Vice Head master, PTC-degree from CoE Paro in 2001, teaching at Changmari CPS since 2005
 - D.R. Sharma, staff secondary, PTC-degree from CoE Samtse 1979, teaching at Changmari CPS since 2008

Visit of Peljorling Middle Secondary School in Sipso, Samtse Dzongkhag, 20.3.09 (no boarding facilities, 1813 students, 53 teachers, 40 classrooms, 10 support staff)

- Interview with Tashi Dawa, Head master
- Group interview with teachers:
 - Padma Zimba, B.A. Psychology, SCE Bangalore, teaching at Peljorling MSS since 2006

- Nima Wangchuk, B.Ed. CoE Paro, teaching at Peljorling MSS since 2006
- Namgay Wangdi, B.Ed. CoE Paro, teaching at Peljorling MSS since 2006
- Yanphay, B.Ed., CoE Samtse, teaching at Peljorling MSS since 2006
- Dechen Choden, CoE Samtse, teaching at Peljorling MSS since 2008
- Sumita Sharma, B.Sc. Microbiology, PGDE, SCE Bangalore, teaching at Peljorling MSS since 2008
- Sangeeta Tamang, B.Ed. CoE Samtse, teaching at Peljorling MSS since 2008

Participants of Learning Event in Bhutan

Presentation and discussion of preliminary results of the “Impact Assessment of SDC/Helvetas Basic Education Projects in Bhutan” (27.3.09, 10.00-12.45 h, at Helvetas Coordination Office in Thimphu)

MoE

- Singye N Dorji, PPD
- Thinley Rinzin, PPD, STEP project coordinator at MoE

RUB

- Gajel Lhundup, Director of Planning and Resources, involved in STEP
- Rinchen Dorji, former teacher educator at CoE Paro, Coordinator of STEP Component 2

Donors

- UNICEF: Karchung

Helvetas

- Dr. Walter Roder, Resident Coordinator Helvetas in Bhutan
- Tashi Pem, Programme Officer
- Sonam Yangzom, Local Consultant for the Impact Assessment

Participants of feedback meeting in Switzerland

Presentation and discussion of the draft report “Impact Assessment of SDC/Helvetas Basic Education Projects in Bhutan” (13.5.09, 8.45-11.30 h, at Helvetas Office in Zurich)

Helvetas

- Christian Oswald, Programme Coordinator Education
- Peter Schmid, Co-Head International Programmes
- Franz Gähwiler, Programme Coordinator Bhutan
- Riff Fullan, Coordinator Knowledge Sharing

SDC

- Markus Bürli, Programme Officer, East Asia Division
- Fabienne Lagier, Education Adviser, Education Focal Point

Annex 5: Material produced with support of PEP, SEP and STEP (incl. PITT)

Sources: PITT-Brochure (Frei, 2003) and STEP Project Evaluation (Evaluation Team STEP, 2007)

PEP/PITT (1993-1998)

Swiss Leaflet (1992) – Basic information about learning and teaching (reviewed in 2001).

Teaching Skills Handbook for Teacher Training (1993), written by L.N. Chhetri & Otto Stern – With 25 lessons as introduction to the principal questions of teaching.

Teaching of Concepts and Skills. Lesson Plans (1994), written by Marianne Frei, Walter Furrer, Otto Stern & Peter Wanzenried – A brochure further developing the “Swiss Leaflet” showing in practical lessons on environmental studies how to involve the students through learning activities in the teaching and learning process.

School Based In-service Programmes. A Model for Teacher Development and School Development (1995), written by Gopi Chhetri, Dorji Kinley, Dorji Karma, Otto Stern & Pema Thinley – Aims at promoting student centred learning through SBIP (School Based In-service Programmes) and it's core element of an intervision cycle that consists of the following steps: professional input, pre-conference, teaching and observation, post-conference. The intervision cycle has been practiced throughout Bhutan in 1994.

EVS. Integrated Subject Methodology – A Collection of Model Lessons, Ideas and Theory (1997), written by the EVS lecturers NIEs Paro and Samtse, SPG Zürich – A handbook with two volumes containing method overviews of History, Science and Geography and various model lessons for each of these subjects.

Mathematics. Integrated Subject Methodology – A Collection of Model Lessons, Ideas and Theory (1998), written by Doma Phuntsho, Arjun Chhetri, Ramin Kuratle & Christian Rohrbach – A handbook that contains lessons and ideas from pre-primary up to grade VI on various topics of Mathematics.

Language. Integrated Subject Methodology – A Collection of Model Lessons, Ideas and Theory (1998), written by language lecturers NIEs Paro and Samtse, SPG Zürich – A handbook on English and Dzongkha that contains lessons and ideas from grade I to VI on various topics of languages.

SEP/PITT (1999-2003)

Handbook for Teaching Practice (1999), written by Teaching Practice Committee, NIE Samtse – A handbook for associate teachers and supervising lecturers to support and enhance the professional development of the trainee teachers during teaching practice.

Idea Folder. Learning Materials for Primary Schools (2000), written by Karchung, Christian Rohrbach, Yentiram Dhital, Marianne Frei, Sonam Tabgay & Dechen Zangmo – A Folder with 17 different learning materials for self-guided student activities, especially suitable for multi-grade classes.

Educational Video: Meme Heylay Heylay – In Search of Happiness (1999), co-production of Education Division Bhutan (Sonam Choden and team), Swiss TV DRS (Lotti Leu, Haneli Alder and team) and Walter Furrer & Barbara Harvey – An educational video based on the Bhutanese fairytale about a man who is in search of happiness.

Implementation Handbook for Resource Centres in Bhutan (2000), written by Jagar Dorji, Mingbo Dukpa, Dorji Karma, Donat Bräm, Markus Rettich & Claudio Zingg – A handbook giving a short profile of main corner stones of a functioning Resource Centre.

A Guide to Continuous Assessment for Primary Schools (2000), written by Phub Rinchen, A.B. Lama, N.B. Raika, Chogyal Tenzin, Lop Tenzin Dorji, Lop Ngawang Dorji, Walter Furrer, Brigitte Eriksson, Christian Rohrbach & Marianne Frei – A guidebook used in many workshops starting from 1999 introducing continuous assessment, its theoretical foundation as well as practical examples.

A Guide to Continuous Assessment with Particular Emphasis on Formative Assessment. (Revised Edition 2003), edited by Phub Rinchen, Arjun Chettri, Namgyel Dukpa, N.B. Raika, Tenzin Dorji, Marianne Frei, Christian Rohrbach & Claudio Zingg – A guidebook to provide classroom teachers with basic ideas in conducting continuous formative assessment in various learning areas.

Revised “Teaching Skills Handbook for Teacher Training” (2003)

Enhancing School Guidance and Counselling Programs in Bhutan (2004)

STEP (2004-2008)

“Moments of Truth”. Researching Pre-Service Teacher Education (2006), published by National Institute of Education (NIE) Paro, NIE Samtse & Royal University of Bhutan (RUB) – A report on the Baseline Survey, conducted under the “Support for Teacher Education Project” (STEP).

Handbook on professional teaching standards together with assessment guidelines for graduating teachers (2007)

Continuous Formative Assessment: A Teacher Training Manual (2004), unpublished draft, written by Phub Rinchen, Arjun Chettri, Namgyel Dukpa, N.B. Raika, Tenzin Dorji, Marianne Frei, Christian Rohrbach, Claudio Zingg – A collection of materials used during in-service workshops held in continuous formative assessment with the main objective to be used as a resource kit by future workshop facilitators.

The State of Our Nation’s Teachers. An Enquiry into Teaching as a Profession in Bhutan (2007), a study conducted at the CoE Paro, published by the Centre for Education Research and Development (CERD) of CoE Paro.

Revised “Teaching Skills Handbook for Teacher Training and Teaching Practice” (2007), also including relevant feed-back and M&E tools

Activity folder for Maths: Constructivist ways of teaching Mathematics (2008), written by Phuntsho Dolma, Arjun Chettri, N.B. Raika, Karma Galey, Rinchen Tshewang, Melanie Fricot, Christian Rohrbach, with some material from Armin Kuratli – 25 lessons plans grad PP to class VIII (263 pages), with 98 activities included 84 blackline masters enriched with didactical instructions and mathematical background information.

Poetry Booklet with example lessons and interactive activities for teaching English (n.n.)

Achieving Excellence: Conceptual Framework (2008), published by the College of Education (CoE) of the Royal University of Bhutan – A publication that lays out in a comprehensive manner the vision, mission, key performance indicators, performance standards, and the action plans for the next twenty years (2008-2028).