UNESCO International Research and Training Centre for Rural Education
UNESCO International Institute for Capacity Building in Africa

A Guide to Developing a Support System for Rural Teachers

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International Research and Training Centre for Rural Education (INRULED) is a UNESCO Category II Centre, located at Beijing Normal University, China. INRULED is the only agency engaged in research and training for rural education under the auspices of UNESCO. INRULED is commissioned to initiate and facilitate activities focused on exchange and popularization of experiences for international rural education within the broader framework of Education for All (EFA), to undertake human resource training programmes for international rural education, and to serve the UNESCO member states, especially developing countries.

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Established in 1999, the UNESCO International Institute for Capacity Building in Africa is one of the six UNESCO institutes and centres under the administrative direction of the UNESCO Secretariat. As the only UNESCO Institute in Africa, it is mandated to strengthen the capacities of teacher education institutions of its 53 member States. This is carried out through a range of initiatives, including introducing information and communication technology for education; establishing networks of partner institutions to foster the sharing of experiences; undertaking research and development on teacher education institutions in Africa; utilizing distance education for improving the capacities of teacher education institutions; linking educational development to economic development through collaboration with the African Union and sub-regional and regional educational institutions; promoting international cooperation for the development of education through the New Partnership for Africa's Development (NEPAD).

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Foreword by INRULED

Education for All (EFA) is an international initiative that focuses on universal access to quality basic education. As UNESCO's top priority in education, it aims to bring the benefits of education to all children, youth and adults. It is widely acknowledged that teachers are playing a key role in student performance, especially in resource-constrained rural settings where the teacher is often one of the few resources available to the disadvantaged students. Indeed, teachers' continuing professional development is one of the most important elements for the success of education system and stances, particularly those in rural and remote areas, war zones and post conflict situations. A number of education projects worldwide have been conducted as a response to the urgent needs of rural teachers' professional development by setting up local support systems for them. It is of great value to examine the successful practices in this area and identify the common attributes and reform elements that are replicable for rural education elsewhere as they seek relevant support for their teachers to improve education quality.

As a Category II Centre engaged in research and training for rural education in the family of UNESCO, International Research and Training Centre for Rural Education (INRULED) initiates and facilitates exchange and dissemination of experience in international rural education within the framework of Education for All. To support the UNESCO Strategy on Teachers (2012-2015) and UNESCO Initiative for Teachers Capacity Development in Priority Countries with focus on Africa (2012-2015), INRULED has launched teacher-related projects jointly with the International Institute for Capacity Building in Africa (IICBA) to accomplish the common missions and strategic priorities of both institutions. "Developing Support System for Rural Teachers' Continuous Professional Development" is the starting cooperation project which aims to study some good practices on support system for rural teachers in the developing world.

One of the outcomes of this joint research project is a publication of the research findings which is going to be published by SAGE Publishing House. It shares five innovative practices on teacher support system that have been successfully implemented in different contexts and identifies some key components for an effective teacher support system in rural settings. Another outcome is this guide book for relevant stakeholders to build up effective support systems for rural teachers which is based on the findings of the research project. It is a practical guidance for policy makers and practitioners. It provides not only the types and case studies of the successful Teacher Support Systems in rural settings, but also the specific steps to and principles for developing a teacher support system. It's our belief that quality teachers could be attracted and retained for rural schools through developing effective and sustainable support system for their professional development.

Director
UNESCO INRULED

Foreword by IICBA

The teacher challenge, both in terms of number and quality, is tremendous in sub Saharan Africa and south east Asia. These two regions account for the largest share of acute teacher shortage in the world. It's in recognition of this fact that UNESCO has made Africa and teachers its priority.

As expected, the problem of sufficiently qualified and trained teachers is worse in rural areas when compared to urban centres. When the reality of far greater number of people living in rural settings in Africa and south east Asia is taken into account, it is not difficult to imagine how formidable the challenges faced by African and south east Asian countries are, without forgetting the fact that there are also other areas of the world where teacher shortage and quality are issues of concern.

The joint studies that informed this guide book have been sponsored by the two UNESCO institutions, namely the International Institute for Capacity Building in Africa (IICBA) based in Addis Ababa, Ethiopia, and the International Centre for Research and Training in Rural Education (INRULED), based in Beijing, China. The studies aim at identifying examples of best practice that support rural teachers in five countries - Cambodia, China, Ethiopia, Romania, and Mozambique. The full reports of the five studies is to be published separately.

This guide book is expected to provide stakeholders working to support rural teachers with information and experiences that may inform their interventions. The provision of quality education largely depends on good quality teachers, and rural schools are entitled to have teachers that are qualified and trained. It is believed that this guide book can help practitioners and policy makers learn from the lessons in the five countries studied.

IICBA and INRULED earnestly hope that their collaborative effort contributes to the ongoing quest on how best to support rural teachers. The two institutions will continue to work together for the betterment of the education of children in rural settings in the different parts of the world.

Arnaldo Nhavoto

Director
UNESCO IICBA

Acronyms

ADPP	Ajuda do Povo para o Povo
CEB	County Education Bureau
CPD	Continuing Professional Development
CRCs	Cluster Resource Centres
EFA	Education for All
INRULED	UNESCO International Research and Training Centre for Rural Education
INSET	In-service Training
IRC	International Rescue Committee
LCSC	Local Cluster School Committee
M&E	Monitoring and Evaluation
NCITT	National Center for In-Service Teacher Training
PRESET	Pre-service Training
REP	Rural Education Project
SBEP	South West Basic Education Project
TGLs	Technical Group Leaders
TLRCs	Township Teaching Learning Resource Centres
TSS	Teacher Support Systems

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Section 1
Overview to the Guide

1.1 Rationale

The purpose of this Guide is to provide concepts, models, activities, steps and principles for those developing professional support systems for teachers in rural areas. This is in response to a piece of research done by the joint research project of UNESCO International Research and Training Centre for Rural Education (INRULED) and UNESCO International Institute for Capacity Building in Africa (IICBA) which seeks to improve the quality of rural education.

This research looked at both issues and solutions for supporting teachers in rural and remote areas. It did this by researching and analysing support systems for teachers around the world. Successful models and approaches used in different countries were identified and analysed for cross cutting factors that led to their success.

The Research report published the findings on rural teacher support systems from five countries: Cambodia, China, Ethiopia, Mozambique and Romania and discovered key aspects that need to be considered when designing and implementing a professional development support system for teachers.

This Guide will use the experiences of these case studies to provide step by step guidance for those wishing to develop support systems for teachers in rural contexts.

1.2 Who is this Guide for?

This guide should be used by anyone who is involved in education, specifically those educating and supporting teachers, because continuing professional development (CPD) should be integrated in the educational system and should be integral to the career pathways and progression for teachers.

It will help give guidance in setting up a teacher support system which provides CPD, which in turn should have a sustainable, qualitative impact on teaching and learning as well as on institutional development. It is particularly important for:

- Education policy makers, reformers and planners;
- Pre-service Training (PRESET) and In-service Training(INSET) providers;
- Teacher Training Colleges;
- Education departments at Universities;
- Provincial and district education departments (Local Education Authorities);
- Teacher trainers/ educators;
- Principals of schools;
- Inspectors/ supervisors;
- Heads of departments in schools;
- Teachers;

Additionally the wider community, specifically students and parents, should be made aware of the importance of supporting teachers in their professional development.

1.3 How to use this Guide

Given the variety of diverse contexts in rural and remote education the Guide should be used in a way that:

- is supportive of and owned by all relevant groups;
- develops individual teacher's practice but also assists in the development of peers and teams;
- informs the development of good practice in a wider context through evaluation and is within normal expectations and responsibilities of the job.

Section 2

Why Develop Teacher Support System for Rural Teachers?

When asking 'why' there is a need to develop teacher support systems (TSS) for rural teachers, it is important to consider the question from two wide ranging aspects. These are: the international context and the challenges facing rural teachers generally. These aspects highlight the significance and importance of supporting teachers in rural contexts.

The INRULED and IICBA research considered both these aspects and the following is a summary of (a) key international policies which are instrumental in highlighting the importance of the role of teachers and the need to move forward with teacher education reform through providing more support and professional development for them and (b) the challenges which are specific to rural teachers and some solutions to these challenges are offered.

2.1 Teacher Support Systems and the International Context

Internationally teachers' professional development is considered an important element in raising the quality of teachers. However more attention needs to be given to teachers and the teaching profession. Therefore raising the quality of teachers needs to be treated,

... with much more serious attention and more resources devoted to them throughout their career, from recruitment through training to deployment, induction, CPD, and the enhancement of their professional social status and economic rewards.(UNESCO, 2011:18)

In rural areas this is even more pertinent where the disparities between urban and rural in terms of resources and access are so much greater. In addition students in rural contexts are often from marginalised and disadvantaged groups and these are precisely the target groups the Education for All and Millennium Development Goals want to reach. Goal 2 for Universal Primary Education states 'ensuring that by 2012 all children, particularly girls, children in difficult circumstances, and those belonging to ethnic minorities, have access to and complete free and compulsory primary education of good quality.' Supporting rural teachers should be a priority to enable them to provide quality education to some of the most disadvantaged children.

2.1.1 Education for All and Support to CPD

International policy and practice in education has long recognised the importance of the teachers' role in supporting and facilitating quality education. The World Declaration on EFA and its accompanying framework for action, which were developed in 1990 at Jomtien, Thailand, remain key drivers to improving access to quality teaching and learning globally. In the EFA Framework for Action it states,

The preeminent role of teachers as well as of other educational personnel in providing quality basic education needs to be recognized and developed to optimize their contribution. This must entail measures to respect teachers' trade union rights and professional freedoms, and to improve their working conditions and status, notably in respect to their recruitment, initial and in-service training, remuneration and career development possibilities, as well as to allow teachers to fulfil their aspirations , social obligations , and ethical responsibilities.' (Framework for Action; Meeting Basic Learning Needs, 1990).

It is important to note that the link between the development of teachers and the provision of quality basic education is made at this stage. Even though the term 'CPD' was not in such wide usage (in 1990) the understanding of the importance of teachers' development throughout their career is evident. Another interesting aspect of the statement is that it recognises 'professional freedoms' which is pertinent specifically when political and socio-economic contexts affect education reform. The statement also implies that teachers' roles and responsibilities should be viewed in an holistic way, from inside and outside the classroom, as it includes 'aspirations, social obligations, and ethical responsibilities'.

A subsequent UNESCO review on the progress towards EFA in 2011 reiterates the importance of teachers' roles in improving the quality of education and sees the teacher at the core of quality. It states,

This view is a much more comprehensive and systematic approach to preparing the new- and developing the current- teachers needed to achieve EFA. This begins from the more careful selection of teacher candidates, through better quality initial teacher education, deployment to where good teachers are needed the most, serious induction and probation processes, and continuing professional development (CPD). But the success of this process depends on ensuring that teaching is once again seen as a profession of 'first choice' rather than 'last chance', and this requires raising both the status of the profession (e.g., through higher standards of qualification and certification) and teacher salaries and other benefits. (UNESCO, 2011)

In this recent document the term CPD is used and again the development of the teacher is strongly linked to the success of EFA. It implies that unless teachers have access to and are provided with the opportunity to professionally and personally develop, progress to EFA will be limited. As in the 1990 statement it recognises that teacher development begins from the initial teacher education[1] (ITE) stage and continues throughout a teacher's career.

In this statement there is no mention of 'professional freedom' or an holistic view of the teacher as in the 1990 statement, instead there is a request for a 'more comprehensive and systematic' approach which suggests a more structured and collaborative path. Although such an approach is necessary in terms of CPD being,' systematically planned, supported, funded and researched', (Villegas- Reimers, 2003: 141), one caveat might be that it could be misinterpreted to advocate a more centralised and top-down approach. This would be at odds with the more popular approach to CPD at present which looks at a more devolved, decentralised way of supporting teachers.

The UNESCO 2011 Working Document goes on to emphasise the importance of raising the quality of teachers and recommends that more attention be given to it, by the authors of the post 2015 EFA agenda. Therefore reiterating and highlighting the importance of the role of the teacher in the progress to EFA in the future.

The 1990 and 2011 statements reflect the political and socio-economical contexts of the times. However very importantly, both demand that there be a greater recognition of the role of the teacher in the provision of quality education. Indeed that the profession be regarded seriously and be afforded the status it deserves, in other words the statements are' taking a stand for teachers'. In terms of CPD it is significant that both see support to teachers as:

[1] Both the terms 'initial teacher education' (ITE) and 'pre-service' (PRESET) will appear in this Guide to describe the start of a teacher's career pathway.

- A long-term, life-long process;
- Impacting on education reform, such as EFA;
- A systematic and comprehensive collaboration;

These themes recur in education literature and are pivotal in teacher professional development discourse.

2.1.2 CPD and UNESCO'S 'Strategy for Teachers 2012-2015'

The current UNESCO Strategy for Teachers (2012-2015) main emphasis, ' is on supporting teachers for quality learning' in order, ' to configure a teaching force that works in an environment that rewards professional improvement and that is committed to improve the opportunities for student learning with well qualified and duly supported teaching practices'(UNESCO, 2012: 1). Here there is clearly a connection between CPD and the opportunities for student learning. It is significant as it is a current international strategy and, 'the strategy provides an overall framework for a new initiative on teachers, aimed at accelerating progress towards EFA goals'(UNESCO, 2012:1).

Furthermore it is relevant to teachers in rural areas as one of its key priorities is, 'systematically organizing and disseminating the existing knowledge base about effective teaching, particularly in disadvantaged contexts, and about mechanisms to support teachers and their professional development while removing obstacles to their success'(UNESCO, 2012:1). In other words, sharing 'best practice' and ensuring there are support systems for professional development of teachers.

Teacher professional support systems has been discussed within the international context but it is clear that it cannot be separated from the political, socio-economic and cultural perspectives because, more often than not, it is the given context or contexts that determine the success or failure of educational reform. There are enormous variations and diversity in educational contexts and for these reasons it is difficult or impossible to find 'one system to fit all'. Instead there will be a number of systems, models and approaches, each being specific to a given context and the uniqueness of that particular educational setting. Therefore what works in one setting may not work in another. This is particularly pertinent to rural contexts where the diversity and variability are great. This also means that there are continuous shifts in TSS thinking and models which has to be managed if support is going to succeed.

2.1.3 International paradigm shifts and paradoxes

There are numerous examples of CPD policy and reform changing direction each time a government changes, so that one government may pursue an 'organisational approach' to CPD, and another switch to an 'individual approach'.

For this reason what is seen during this period of the progress to EFA and even before, are significant paradigm shifts in how CPD is regarded internationally and nationally. There has been a move away from what is termed the 'deficit model', which Day and Sachs (2009) describe as, 'teachers [needing] to be provided with something (knowledge, skills) which they did not already have,' to a more active and 'reflective model,' where teachers learn through discovery and active learning. Villegas- Reimers in her extensive literature review on CPD describes the 'Reflective Model' as one which, '… builds on teachers' personal classroom experiences. It requires that the teacher pay attention to daily routine and the events of a regular day, and to reflect on their meaning and effectiveness' (Villegas-Reimers 2003:104).

Since these shifts have occurred, teacher support is less likely to be seen as a process of filling the gaps in teachers' knowledge and skills and more likely to be viewed as a process where teachers are seen as active learners and

reflective practitioners, and in turn this is how their students can learn and develop. Moreover CPD is now seen as something that is not short term but long term; a lifelong, ongoing process which takes place in particular, diverse contexts. CPD is now considered a more collaborative process and linked to sustainability and whole-school approaches than it has been in the past.

Additionally what these different contexts show us are the paradoxes of teacher continuing professional development which make it challenging to set up teacher support systems. Some of the paradoxes currently being discussed are:

- 'marketisation' and/ or 'democratisation' of education;
- decentralisation, devolution and bottom –up approaches versus centralisation and top down approaches;
- managerial versus democratic professionalism;
- autonomy versus central accountability and standards.

These opposite tensions may have common goals and objectives, for example, to improve teacher performance and skills and improve learner outcomes, however it is, 'how they go about doing this and who has control over the process is what distinguishes one from another,' (Day and Sachs, 2009:7). These contexts, paradigm shifts and paradoxes are necessary to understand in order to consider what makes a successful, relevant and effective teacher support system in rural areas.

2.2 Professional and personal challenges for rural teachers

The problems rural teachers face have been well documented in teacher education literature, and while some are common to all teachers (both urban and rural), the issues are often exacerbated in rural areas because of geographic and socio-economic isolation. These problems include; poor resources in all aspects, poor access, poor communications, employing the least experienced teachers or untrained teachers, little or no support, low morale and high absenteeism, no incentives, teachers feel they are out of the system, underpaid and are given no professional development. In many countries there is extreme inequity between urban and rural teachers both in the developed and developing world.

Table one below outlines some of the challenges rural teachers face, both professionally and personally. Types of teacher support are suggested in order to combat these challenges which often increase the urban – rural divide.

Table 1: Challenges that face rural teachers and suggested teacher support

Challenge: Poor resources and poor access/ communications so teachers feel they are 'out of the system'
Suggested teacher support: • Develop CPD systems that meet local needs and create local solutions, for example, school-based support systems and school-cluster systems; • Develop CPD systems that relate to internal rather than external goals and objectives; decentralization and devolvement; • Use 'bottom up' CPD strategies (rather than top down) that feed into policy at provincial/ central level; • Involve teachers in identifying professional development needs and being part of the decision making process;

- Use CPD systems that include local leadership to be able to plan short, medium and long term plans;
- Develop plans that consider both institutional and individual CPD needs.

Challenge: Least experienced and / untrained or under-qualified teachers

Suggested teacher support:

- Use experienced teachers within the community as coaches and mentors; coaching and mentoring schemes; use of reflective models of CPD;
- Provide incentives to attract more experienced teachers and new teachers;
- Provide relevant professional development training and content;
- Provide 'Bridging Courses' through CPD;
- Recruit more local teachers;
- Recruit more teachers from ethnic minority areas

Challenge: Little / no support / feeling of isolation/low morale & absenteeism/ lack of incentives/ underpaid

Suggested teacher support:

- Use peer support systems; collaboration with other teachers and schools; networking beyond the school community e.g. other institutions, external links
- Develop learning communities; use of Distance Education and ICT systems
- Develop School -Cluster systems;
- Acknowledge teachers' prior experience and knowledge; Incentive schemes;
- Provide systems that offer continuous support; Introduce reflective models of CPD;
- Involve parents and community to raise awareness of the importance and relevance of education to bridge socio-economic disparities

Section 3

How Can Rural Teachers be Supported?

3.1 Defining a teacher support system for rural teachers

So what do we mean by a support system for teachers in rural areas? A Teacher Support System could be defined as, 'a support strategy and mechanism for teachers and schools in a given context, particularly in rural areas, which brings together material and human resources to provide continuous, relevant support to teachers' professional development so as to improve the conditions for teaching and learning'.

For rural areas it ensures support and resources are available to rural teachers who are normally isolated with no access to the support they need. Moreover it enables teachers and educators to support each other by providing follow up, sharing good practices and looking for solutions to local or unique issues, such as, large and over-crowded classes, teaching in bilingual or multi-lingual classes, teaching against gender stereotypes, teaching children from extremely poor families, single parent families or orphans.

It also differs from a CPD support system in urban areas, which often focus on purely professional development, because a TSS in rural areas also serves the community, as a community learning resource centre to develop literacy and numeracy skills or skills training for rural labourers, so it has a developmental purpose too.

Therefore we might say that a support system for rural teachers is characterized by the following elements:

- A group of teachers that serve as a network to exchange ideas, share good practice and support each other professionally;
- The presence of a group of facilitators (mentor, tutor, trainer or supervisor) who provide on-going and follow up support for classroom practice, professional development and in-service courses;
- A space that is called a 'teacher resource centre', which may house meeting facilities, a lending library, reprographic materials and ICT tools (telephone, fax, internet);
- The involvement of wider communities in the TSS, for example, parents, members of the town/ village, other professional bodies, local businesses and so on;
- A mechanism put in place for the function, progress, management and monitoring of the support system to ensure accountability and transparency.

3.2 Strategies which can support rural teachers globally

The five-country case study identified in INRULED and IICBA research revealed several strategies for supporting rural teachers. Four of these are summarised below and show how different contexts shared similar experiences to provide systematic and sustainable teacher support systems:

3.2.1 Meeting local needs but combining with nationwide policies/actions

A teacher support system that meets local needs with local solutions is more likely to have the commitment of both teachers and administrative staff in schools and research has shown that, 'regardless of how effective an intervention may be, without teacher commitment, lasting change will not take place' (Fullan, 2001; Berends et al, 2002).

Across the five case studies it was found that local initiatives had to be combined with national strategies in order to be successful. In Romania, the Rural Education Project (REP) focused on a range of grassroots activities, one of them being school-based professional development. At the same time, it supported the work that led to the definition of the national education indicators, the development of the education data base and the initiation of the annual education reports presented to the Parliament by the Minister for Education.

In China, on the South West Basic Education Project (SBEP), it was found that the design factors of participatory teaching and a teacher support system on the SBEP matched those of the evolving Ministry of Education's policies and practices, and SBEP gave the Ministry opportunities to examine well managed and carefully monitored pilot activities in four provinces.

3.2.2 The importance of the role of leadership, shared values and ownership

A desirable aspect for a successful teacher support system is the development of local leadership and planning. Supporting school-based, local systems which create opportunities for continuing professional development requires a great level of commitment from not only teachers, but also from school leaders, local education authorities and the community. It is therefore relevant that a teacher support system for CPD should have a whole-school approach so that there are shared values, knowledge and skills leading to a shared understanding of how they want the school to change and what reforms are necessary.

On the SBEP in China it was only with the strong support from local education administration, that the teacher support system activities and locally-generated innovations got sanctioned and supported through financing and resourcing. Successful TSS in the SBEP showed that the more well informed the County Education Bureau (CEB) leaders and inspectors were about the project's aspirations and activities of the TSS, the better it was for continuing support.

In the Mozambique case study they found that "Ownership" of the project objectives was vital, and that an enabling environment should exist for local governmental institutions and community organizations to establish a collaborative partnership in undertaking the responsibility for developing a local "vision" and strategy, and for designing/planning, allocating resources, implementing and monitoring/evaluating of development activities that better cater to local needs. It was important that the various local players, teachers, students, school headmasters, project managers, local authorities, local leaders and formal and informal local entrepreneurs become the driving force towards development, and develop a "sense of shared ownership", and jointly manage their development initiatives.

3.2.3 The importance and role of community

When teachers are deployed to rural areas, it is not only the teaching and learning and curriculum they have to 'take on' but also the community. This works better if teachers are recruited from within the community but more often than not teachers are not. In addition in rural areas the community can take on an even more prominent role with regard to school-life, so building relationships is even more pertinent.

Often parents and the wider community do not understand the importance of setting up teacher support systems for professional development. They would prefer funding or budgets spent on new buildings rather than CPD. Therefore, there should be whole-school strategies to involve the community in school planning and reforms. Involving the community, as the Mozambique study showed, creates a shared understanding on why teacher professional development is important to the quality of education and better learner outcomes.

In Mozambique community development through education and health promotion, using the project, meant that the community developed organizational and leadership capacity, built on strengths, respected community values and learnt from experiences. The main lessons after more than a decade of implementing the TSS project are around creating and adjusting plans to address concerns, make decisions about resources, share responsibilities and develop communities in action.

3.2.4 Capacity building

In the Ethiopian case study one of the most important aspects was capacity building of both human and material resources. This was common across all the projects analysed. In Ethiopia, it was important to facilitate the activities of Cluster Resource Centres (CRCs) by assigning responsible personnel. Initially, the CRC activities were run by CRC committees which were comprised of member schools. However, the regions decided to assign competent supervisors in each CRCs, who were trained and supported through the project. The performance of the CRCs improved wherever there were these supervisors.

Materials were initially prepared at federal and regional levels. However different workshops were organized on interactive material production for school based and cluster based training. Now it has become common practice for schools to prepare modules for their CPD training, and sharing these materials at school as well as CRC levels.

In general, in order to support rural teachers in their endeavour to improve their professional competency and teaching skills it is vital to strengthen establishments like CRCs by assigning resources and supervisors. In the Ethiopian experience it was shown that CRCs can effectively work if there is follow up and support by a nearby education bureaus. Therefore, to deliver effective support for teachers in rural areas through CRCs it is very important to provide capacity development training for educational leaders working at different levels.

In the Cambodian case study capacity building for teacher trainers and educators at district and provincial level was emphasised as being critical in the success of TSS. This is because they are too often forgotten and yet are pivotal in the facilitation and management of the capacity building at local levels. Therefore it is necessary to ensure that time and training is given to them as well as ongoing support so that they can provide quality inputs at school level. As Geeves and Bredenberg point out, 'Training is seen as a core component of the project. It is clear that sustainable improvement in remote schools depends upon well informed education officials working at Provincial and District levels to provide support and responsive management. They in turn must have access to and support from specialist personnel at national level. The quality of training programmes and the trainers will be critical in achieving such an enabling environment,' (Geeves and Bredenberg 2004: 11).

3.3 TSS and problem solving: solutions from the INRULED Case Studies

In the five case studies many of the challenges that are specific to rural teachers and contexts were confronted and solved, for example, in Romania, logistical problems were resolved which meant that mentors could reach teachers at school-base. Mentors were able to travel to distant places with the cars procured for each of the 41 counties. Cars became real mobile resource centres, as a result of the equipment and materials they carried. In addition, 463 fixed resource centres were established and equipped. In this way, the training of rural teachers was facilitated and even those from the most remote areas could benefit from various learning materials.

On the SBEP in China they found that capacity building and follow up were key to meeting many of the teachers' needs. This they found could be done through quality training using relevant, quality materials and methodology. However training alone was not enough. It was found that training needs to be put into practice, monitored and followed up. Most capacity development projects for teachers implement the training but neglect the follow up support. The latter is the essential ingredient for teachers to be able to develop professionally (and personally) and to impact on the quality of teaching and learning in schools. Monitoring and follow up of training and support to teachers' professional development were essential parts of SBEP teachers' support system. These elements were pertinent in the SBEP context where teachers work in extremely remote and challenging situations with few or poor resources and little access to other teachers or teaching/ learning materials.

In Cambodia, where school clustering has been used in rural areas for decades as a means to support teachers amongst other strategies, the challenges to equity, access and quality of education when setting up the school cluster systems were immense. However through years of experience the following remedies were found which has brought a more equitable and sustainable system which supports teachers' development:

- Focusing on institutional and individual capacity building rather than construction;

  This has been done by reducing construction and focusing on resource sharing, capacity building and accountability.

- Setting up working groups;

  In terms of teacher support the most important working groups set up in the Cluster Systems are the Local Cluster School Committees and the Technical Grade Leaders and master teachers.

- Devolved planning and management through grants;

  The direct disbursal of funds at local level meant that capacity in education management was being built at school, district and provincial levels.

- The development of manuals to make the sharing of resources more explicit;

  Materials development is all too often overlooked in teacher development systems but is core to sustainability and key to building confidence and capacity in educators.

- Income generation schemes to provide funds to enable directors and teachers to travel to core schools to share resources.

  In some clusters sustainability has been addressed through income generation schemes, for example, credit schemes which are administered by the cluster from a central fund.

Section 4
Types of Teacher Support Systems

4.1 Aims and goals of a TSS

As will be seen in the TSS models below (4.2), the development of the TSS in each case study, was considered as a process and there were clearly defined aims, goals and purposes for their interventions. Some common aims and goals were to:

- meet the needs of the teachers and their context
- enable teachers to expand and fulfil their potential
- contribute to school-based and personal development
- contribute to the wider community
- have ongoing and follow up support
- include activities that increases knowledge, experience and understanding, improves performance and contributes to lifelong learning

4.2 Models of TSS in rural settings

Most teacher support systems, designs and models use a blended approach to their interventions. This means that some support will be face to face, specifically if it is mentoring or capacity building training, some might be distance mode through self instructional materials or by an ever increasing technological mode, either through using mobile phones, computers, internet and emails.

The joint research of INRULED and IICBA in the five countries revealed some examples of 'best practice' in terms of TSS models. These models used a variety of methods but also shared some common attributes in that they:

- were seen as long-term and a life-long process;
- made an impact on education reform
- developed according to contextual changes that occurred;
- followed both 'bottom- up' approaches and also a blend of 'bottom-up' and 'top- down';
- had variety within the system so the opportunity to try out different models and activities;
- provided both individual and organisational approaches to CPD.
- used systematic and comprehensive collaboration

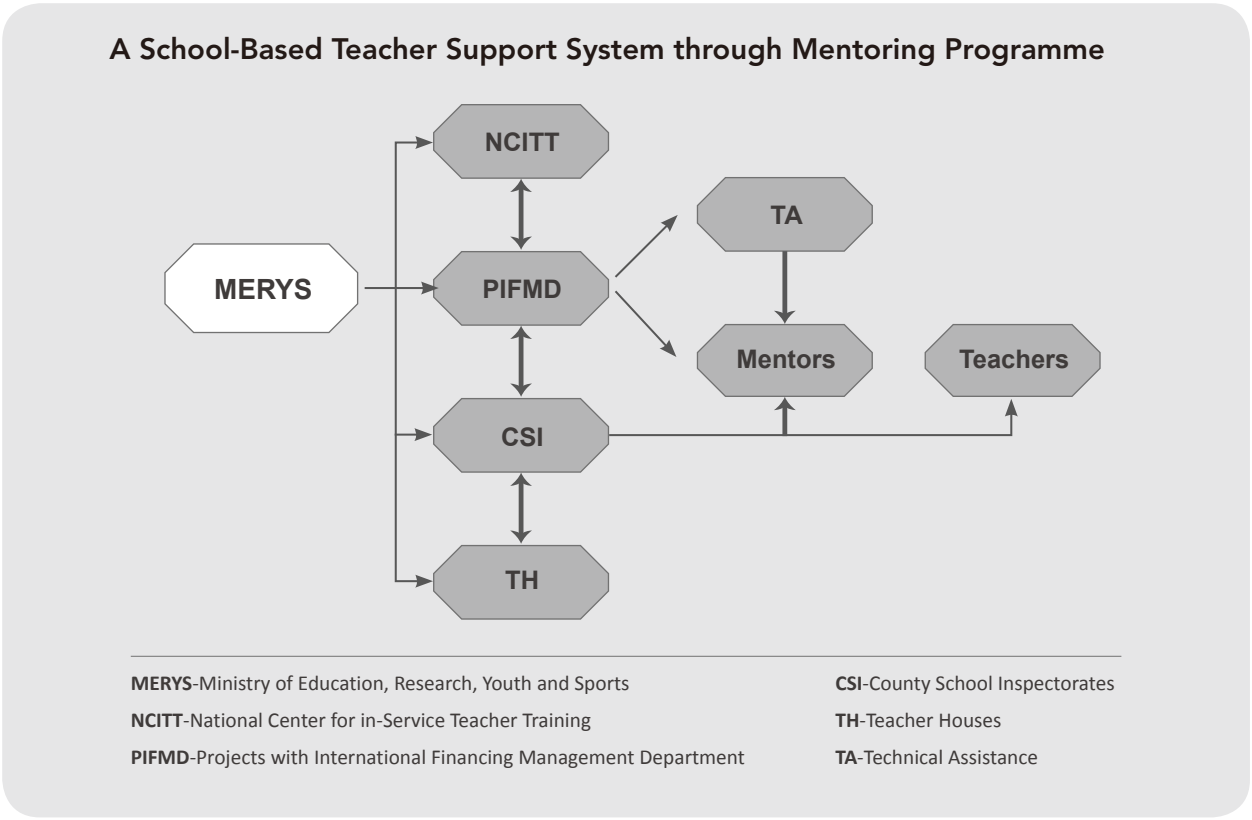
Examples of successful TSS models described in the five case studies for the INRULED research are described below.

4.2.1 A Mentoring Model

In Romania the Rural Education Project introduced school-based professional development in which mentors played the main role and found it was a useful way to reach and assist teachers in rural schools. The training of mentors and solutions for transport problems were critical to the success of the programme. This approach was

particularly helpful in making teachers understand the need to shift teaching and learning from rote forms, based on memorization of facts, to active forms which emphasize critical, analytical, and problem-solving skills, as well as in helping them change classroom practices. The main condition for the effectiveness of this approach is continuity of the pedagogical support, which can be guaranteed through formal recognition and institutionalization of the local support services. Figure 1 shows how the Mentor System was systematised and institutionalised to ensure continuity of the initiative.

Figure 1: Supporting Teachers through Mentoring System



4.2.2 Teaching Learning Resource Centre Model

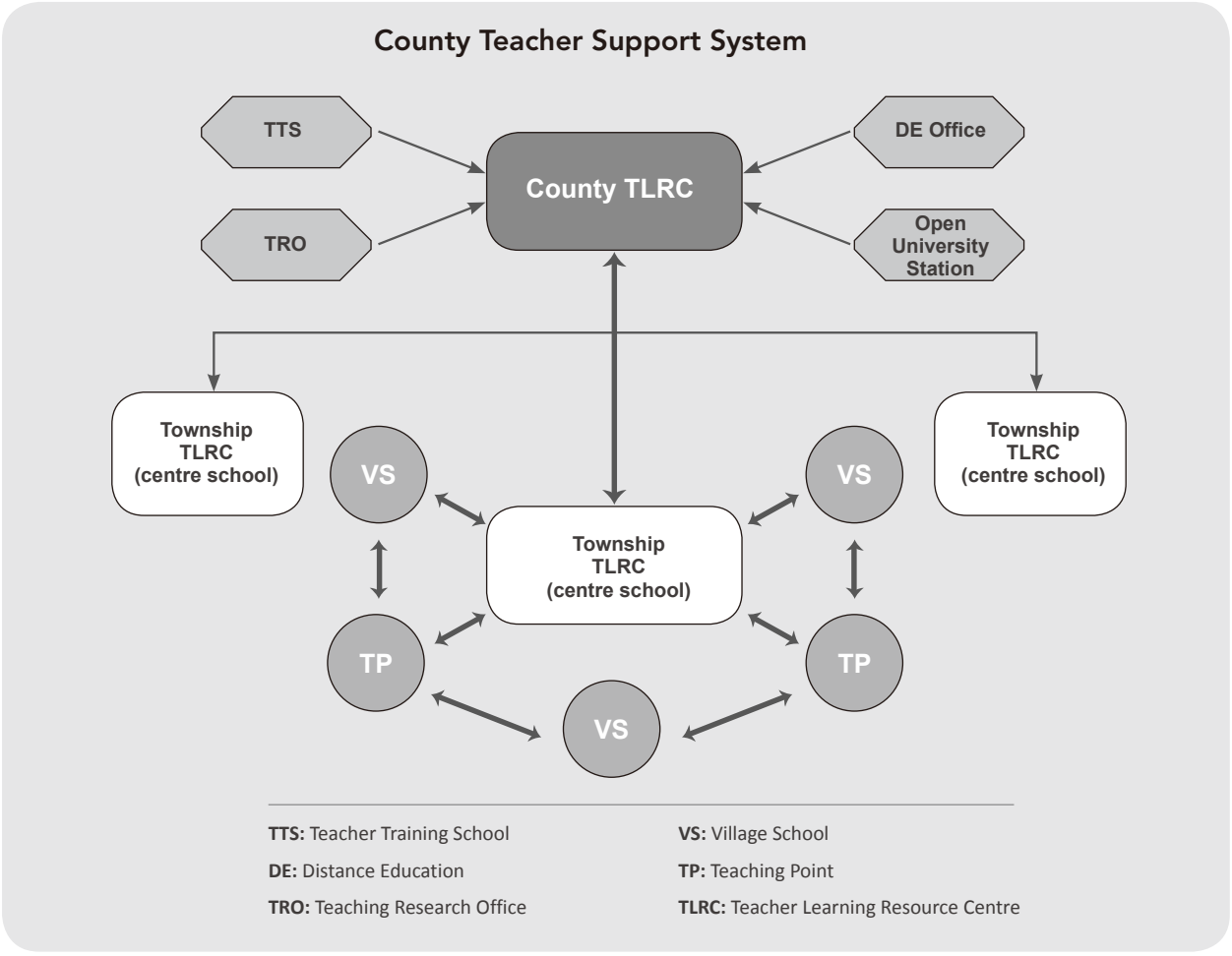
In China, the Southwest Basic Education project created a teacher support system through county and township Teaching Learning Resource Centres (TLRCs) as a strategy to share resources and best teaching practices among teachers in remote areas; improve access to a wide range of professional development activities; foster co-operation between in-service teacher training providers and schools; improve the management of education.

The success of it was not to create a new system but to work within the government system, the TSS in project counties corresponded with the local education administrative system, which avoided confusion or conflict in responsibility and authority over schools. The interventions implemented through the TSS were realistic since they supported and extended the development of the government's own initiatives on poverty reduction through enhancement of education opportunities. This increased the chance to sustain and promote the project initiatives.

Another key element for success was the considerable commitment from local education authority, school leaders and teachers. In the context of China, it becomes a crucial factor to function the support system, especially after the end of the project. With financial support assured by the rising national and provincial education budgets, the professed political will to continue the reforms and the human capital in place, it is believed that the best practice of SBEP TSS will be expanded and sustained.

Figure 2 shows how the TSS on the SBEP made linkages at different levels. Here we can see how from the smallest institution (TP = teaching point) to the higher institutional level (county) strong linkages were made so that teachers were supported at each level.

Figure 2: SBEP County Teacher Support System



4.2.3 School Clustering Model

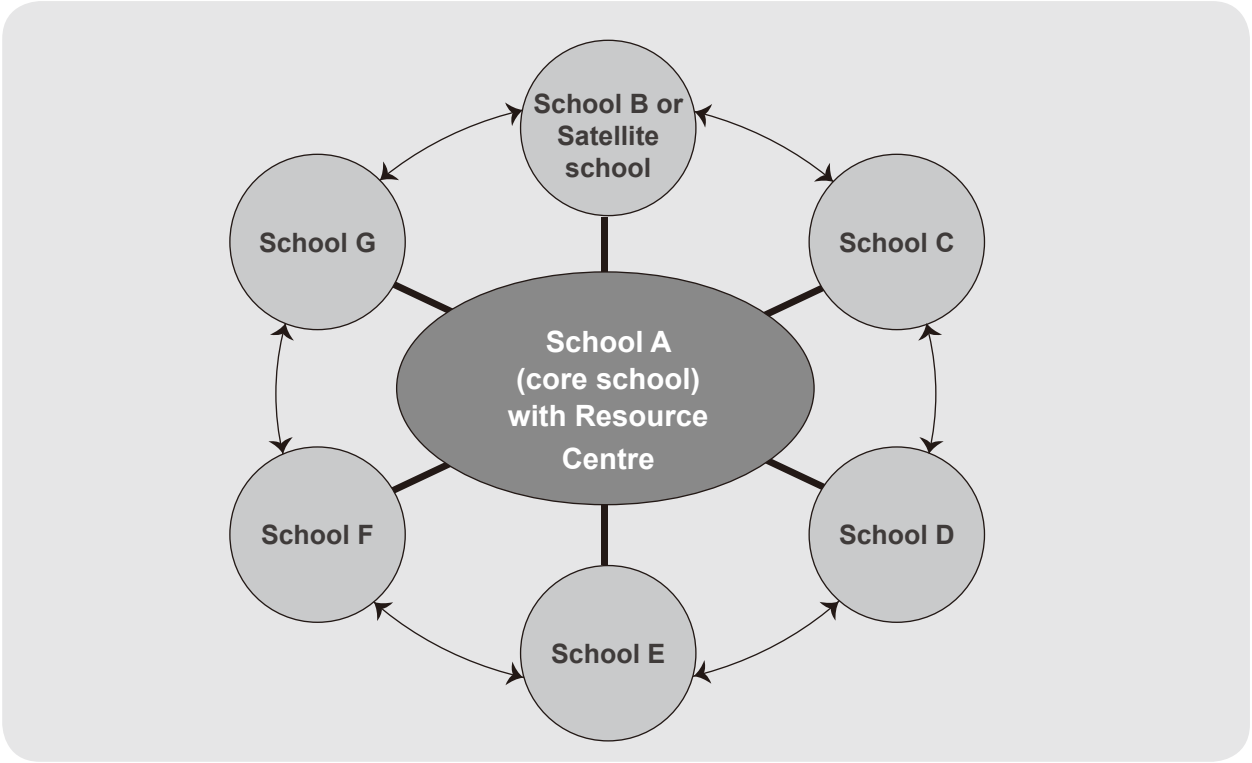
In Cambodia school clustering has been used for many years especially at primary school level. School clustering is a common model in rural and remote areas as it means that human and material resource can be shared more easily.

Internationally there is wide diversity in the organisation of clusters and the Cambodian School Cluster system is no exception. On a surface level the structure of the clusters in Cambodia is made up of the 'core' or 'central' school which often houses the Resource Centre. The Core School is usually located in the geographical centre so that all other schools are meant to be less than 7 km away. Directors and teachers meet at the Core School for professional development for one or two Thursdays a month.

Other member schools are called Satellite Schools where teachers usually meet for Thursday meetings or at a nearby school on days when they do not travel to the Core School. The number of schools within a cluster varies from five to eight in a neighbourhood or district.

Figure 3 shows a typical, surface definition of a school cluster which focuses primarily on the geographical arrangement of the schools.

Figure 3: A typical, surface definition of a school cluster



Initially the organisation and management of the cluster system in Cambodia was heavily 'top-down' and centralised with a hierarchy of committees. These were: the National Cluster School Committee, Provincial Cluster School Committee, and District Cluster School Committee and finally and most innovatively the Local Cluster School Committee (LCSC).

The members of the LCSC are all the Directors of Primary Schools in the Cluster, Technical Group Leaders (TGLs), community representatives, the local Lower Secondary School Director (if there is one in the Cluster) and representatives from the Commune Council. When School Clusters receive support from international organizations/NGOs, the LCSC is an important body for deciding how to use the funds.

The Cluster Director is one of the School Directors and is responsible for chairing meetings of the Local Cluster School Committee, helping School Directors in their management tasks and helping Technical Group Leaders (TGLs) organise Thursday technical sessions. The TGLs are chosen from the teachers at each grade level from schools in the Cluster. The TGLs are responsible for carrying out the Thursday technical sessions and assisting teachers at their grade level to improve their teaching.

By the new millennium the School Cluster organisation was realigned according to Bredenberg ,' to give greater focus to internal functions that (did) not entail material resource sharing. Capacity building and accountability (or monitoring) functions should be the focus of this re-alignment,' (Bredenberg, 2002: 23). Bredenberg recognised that ,'Where LCSCs and teacher supervision networks have been well organized, they offer a tremendous means to expedite interventions of quality that seek to promote innovation, ' (Ibid).

Brendenberg, an expert on school clustering believes,' Thinking of the clustering process in terms of function can provide a practical way of grasping the activities that must be set in motion in clusters...models focusing on function can be described as 'deep' structure frameworks because they can be quite explicit in guiding the process of implementation,' (Bredenberg, 2000: 17). In the Cambodian case study these functions are:

- Capacity Building
- Resource Sharing
- Accountability

Capacity building through cluster-based teacher supervision system

Technical support is provided to teachers through this system in Cambodia. It has been developed by using the Thursday 'technical meetings' and through the development of a network of technical groop leaders within the clusters. These TGLs provide teachers with teacher training and supervision systems. These systems are considered to be the most important by teachers as Bredenberg points out,'... it should not be forgotten that teacher training/supervision represented an important area which many cluster school practitioners identified as among the most successful achievements of cluster-based interventions,' (Bredenberg, 2002).

Resource Sharing

Within the Cambodian School Clusters and the hub for sharing resources is the Resource Centre. Latterly the Resource Centres have become more of a conduit or link between teachers from the different schools; between external experienced trainers/TGLs; between education management staff and between school and community. Therefore a more needs- and local-based type of resource sharing has been developed. The Thursday teacher development meetings provide a good forum for assessing these needs for teachers.

In addition the Resource Centres are used as venues for training supervisors and school managers on how to support teachers and students within the clusters both technically and academically. Schools and communities use the centres to organise joint planning activities too.

Other resource sharing mechanisms which have been developed in Cambodian School Clusters are: mobile libraries and the Cluster School Library which support study and research for both teachers and students. These have been used effectively by teachers in their personal development and in classroom action research.

Accountability

This teacher supervision system holds teachers accountable for their teaching and performance and it promotes locally based modes of teacher supervision and teacher training. Indeed this system is a good example (see Figure 3) of how the functions of: sharing resources, capacity building and accountability are integrated and synergised.

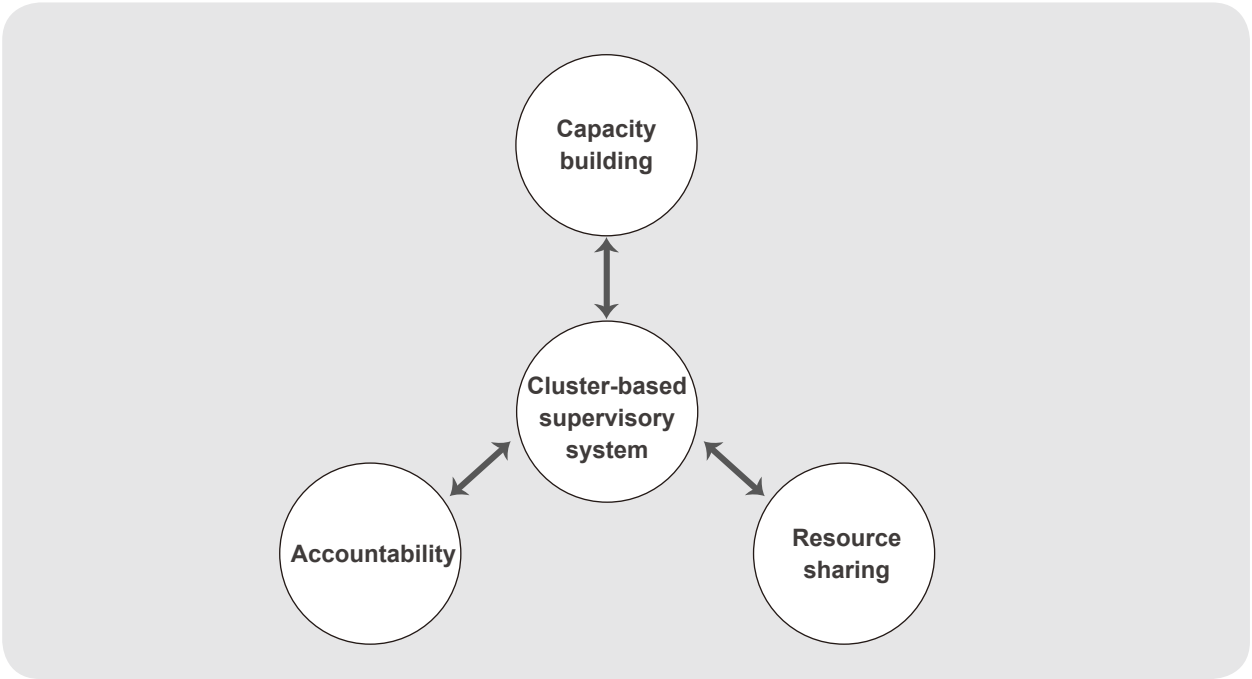
Resource Sharing and the Teacher Supervision System being used in Cambodian School Clusters can provide valuable feedback on many teacher development and cluster activities, for example, on the:

- quality of teaching and learning;
- quality of support to teachers;
- quality of the relationship between school and community;
- use of resources (people, financial, material);

- use of libraries;
- use of systems in place, for example, rotation systems for resources;
- use of records and data

School clustering systems, as in Cambodia, can be developed to allow the implementation of activities which are accountable and which complement the other two functions: resource sharing and capacity development.

Figure 4: Integration of functions in school clustering



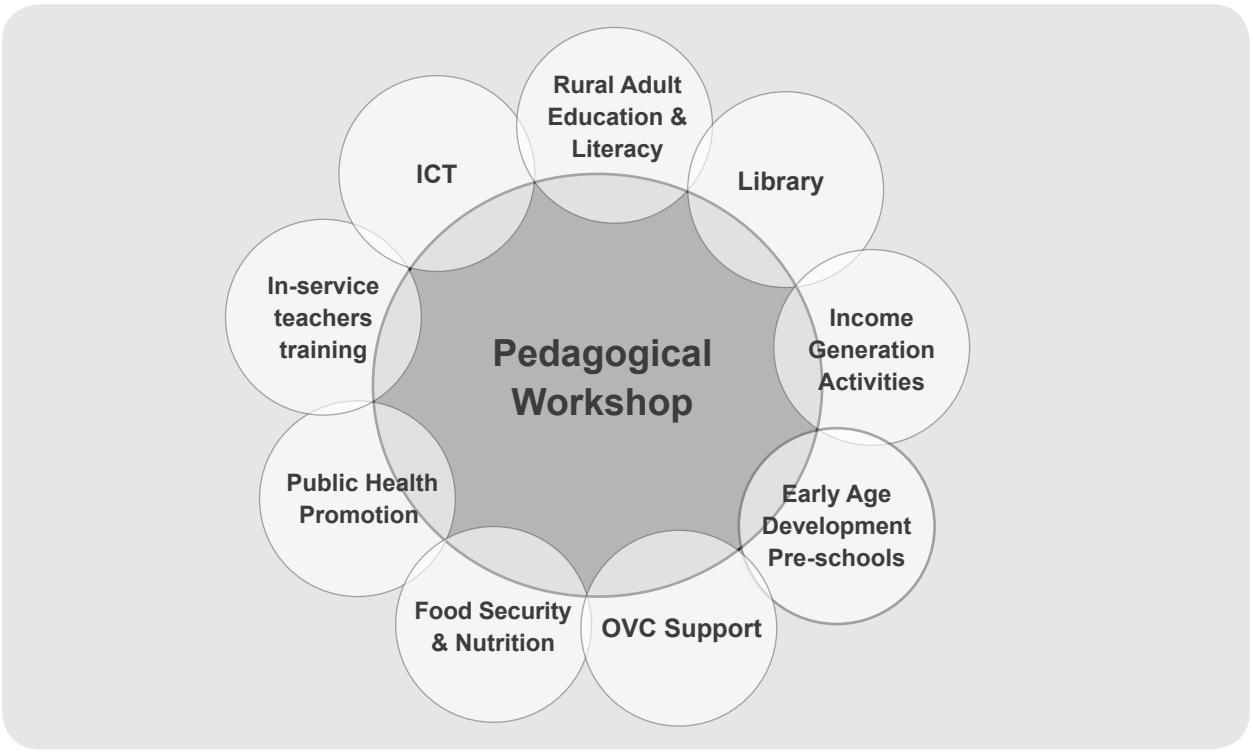
4.2.4 *Pedagogical Workshops Model*

In Mozambique, the Ajuda do Povo para o Povo (ADPP) developed an interesting approach to TSS through Pedagogical Workshops. The Pedagogical Workshop's goals are to create better learning opportunities for children and adults, to empower them with the skills to participate more effectively in the social and economic development of their district.

The main focus of the pedagogical workshops is on capacity building, empowerment and community ownership. These three elements are key to the achievement of the project's outcomes. Quality of education depends on capacity building of teachers, school councils and local authorities. The teachers are trained in-service in order to improve their skills and be able to implement a more child-centred approach, and to develop extra-curricular activities so that the school environment improves. The teachers are trained in pedagogical methodologies which enable them to be more proactive in their work.

The pre-service training of significant number of women empower them to play a more active role in raising the quality of education, and serve as role models for girls. Empowerment is also a key element for school council members. The community leaders and parents who gain awareness of their rights and responsibilities are able to actively participate in the school management and in the district council sessions in planning and monitoring of local policies, mainly education-related ones.

Figure 5: The functions of Pedagogical Workshops



Pedagogical Workshops have promoted and supported the use of ICT tools: training of teachers to manage computers and use modern digital tools. This means access to studies, comments from other peer teachers, working groups for planning, debating and sharing of experiences. The digital libraries set up in the Pedagogical Workshops have made the training more effective, and the use of DMM (Definition of Modern Methods), a system of teaching and learning implemented by ADPP, has been helping teachers to develop a more child centred methodology.

Rural teachers who work in difficult conditions have raised their motivation and become multi-faceted professionals who see education as part of community development, and mainly see themselves as agents of change. The retention and completion rates in schools around Pedagogical Workshops have improved.

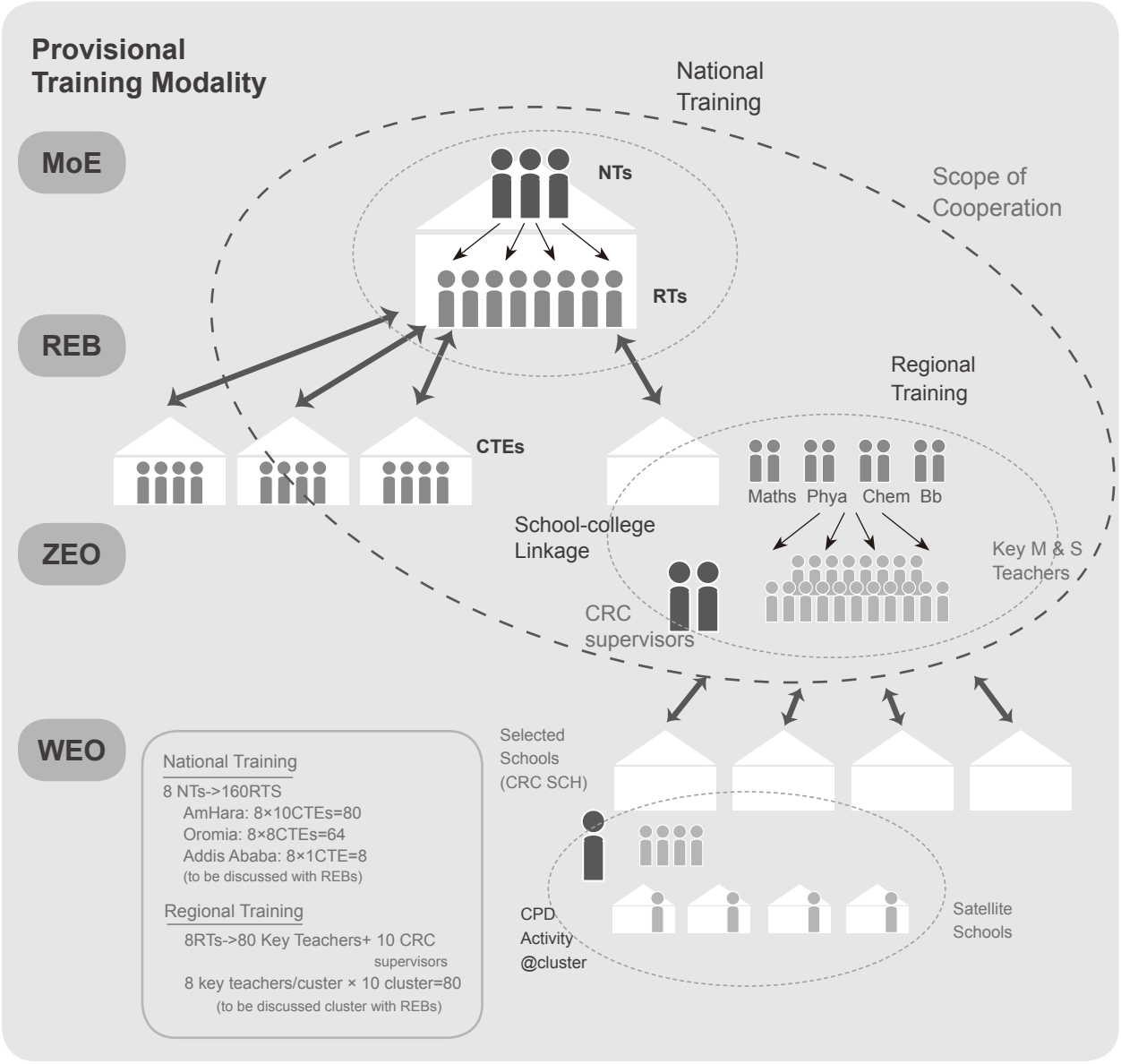
4.2.5 Cluster Resource Centres Model

In Ethiopia, the CRC system has been running for several decades following a four-year pilot project in the 1990s. After four years of this pilot project, the importance of establishing CRCs became clear and well received by stakeholders. The Ministry of Education accepted it as an approach and used them to implement a CPD programme and expanded it all over the country.

This was done through using cluster systems similar to the Cambodian example. In the Ethiopian system, 3-5 schools are clustered in rural areas and 2-3 schools in urban areas. This depends on the numbers of teachers and proximity of schools to each other. It has been difficult to cluster some schools because of their distance from the centre school. In the case study examined by INRULED and IICBA research, direct support was given by Woreda Education Offices which work to strengthen the pedagogical centres of the schools.

In most cases, the training programme of CRCs followed a cascade model: drawing trainers from regional levels who received training at Federal level. Regional trainers shared their experience, knowledge, and skills to key teachers at the regional level. About 7 key teachers were selected based on their performance and training facilitation skills in each CRC. These key teachers also trained teachers in their respective CRCs. The Mathematics and Science cascading training model is shown in figure 6 as an example.

Figure 6: The Mathematics and Science cascading training model (MoE: 2010)



CRCs are used as the nearest training centre for the schools. Teachers of the satellite school receive their national training at the CRC. CRCs are also used as a resource centre for teachers of satellite schools to share their experience with their colleagues, make their teaching aids using resources in the centre, and disseminate their success stories and best practices. Teachers from nearby schools use the centre at any time convenient to them. But, for trainings and workshops the centre will arrange times suitable to all teachers in the satellite schools. Most of the time the trainings and the workshops are arranged during weekends and semester breaks.

For more information on these examples of 'good practice' see Annexe

Section 5
Steps to Developing a Teacher Support System

5.1 Introduction

As has been seen from the five case studies in the INRULED and IICBA research, when considering the design and development of teacher support system the following fundamental elements must be established first:

- It must have clear goals, vision and ownership: all too often new initiatives are started without clear strategies in place and therefore goals become unclear and get changed constantly, damaging the process and impact of the intervention. From the offset stakeholders should have clear short, medium and long term strategic goals and a shared vision on how to set up a TSS.

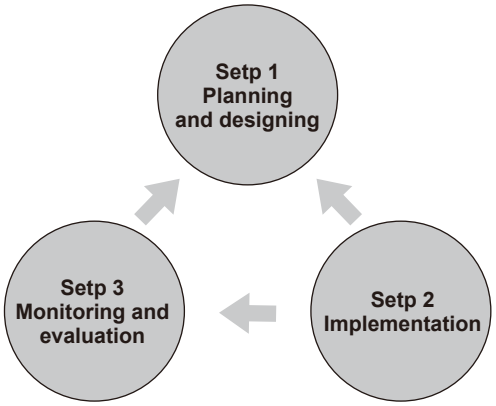
- It must support other national reforms: any new intervention cannot be considered in isolation but as an integral part of a country's national strategy for teacher education and teachers' career pathways. Members from across ministry of education departments as well as representatives (teachers and principals) from schools should consider this when developing the strategic goals and visions.

- It must select key change agents, for example, teacher trainers/educators/facilitators/supervisors, from across education institutions so they have a shared understanding of the intervention and feel they all have a stake in its success. Key stakeholders need to understand the aims and purpose of the intervention. This then ensures an element of sustainability for the future.

5.2 Steps in the design and development of a Support System for Rural Teachers

In all the case studies, the TSS projects described in detail how they developed their interventions. What is clear in all the examples is that it was a process and steps were followed. These steps have been simplified and are shown in Figure 7.

Figure 7: Simplified steps in the design and development of a TSS



At each step a number of tasks were accomplished. The following describes the steps and tasks related to them in detail with examples from the INRULED and IICBA case studies.

Step One: Planning and Designing

1) Set up goals and objectives of the support system which address teachers' professional needs

As noted in the introduction to this section clear goals and objectives are key to a successful intervention, without them the initiative will fail. In all five of the case studies it is clearly seen that from the outset the goals and objectives were based on the professional needs of the teachers, specifically rural teachers.

For example, in Romania the choice of the mentoring programme was guided by two strategic principles namely, the need to reach teachers in rural schools and secondly the content of the mentoring programmes. Teachers in rural schools still used rigid teaching methods, which relied heavily on rote learning, placing students in a passive role. The mentoring programme was focused on training teachers new, interactive, teaching/learning methods such as: discovery, group learning, critical thinking, problem solving and conducting differentiated didactical activities.

Through meeting teachers' professional needs it was seen that the goals and objectives of these case studies were based on local recognition of needs and local solutions which, as already has been commented on, result in truly effective reforms. This permits both teachers and administrators to establish a personal commitment to the reform.

2) Review the existing curriculum, existing in-service policies and programmes, current reform agendas

Another common denominator of the case studies in the INRULED and IICBA research was that they all considered the current situation and contexts before planning and designing their respective intervention.

In China, in the SBEP, a review of the current in-service training was done to establish what was happening at grassroots level and where the new intervention could 'fit in' by either strengthening what existed already or bringing in new ideas.

In Mozambique, the ministry of education reviewed the quality of education and major gaps were identified. Therefore the design of the ADDP intervention was based on remedying these gaps through building up a sustainable support system. For example there were constraints in the state budget which reduced the number of teachers trained and contributed to high pupil-teacher ratios, therefore the training of more teachers with external support was key; in-service teacher training had to ensure that teachers had to have the capacity to effectively meet the requirements of the national and local curriculum, including lesson preparation, and the capacity to deal with social and cognitive challenges in learning and so on.

3) Assess the needs of teachers and trainers

Needs assessments are key and crucial to the planning stage of any intervention. In all the examples looked at in the INRULED and IICBA research it was found that the TSS were based on thorough research, either of studies, baseline reports or education reform policies. In other words the projects were based on thorough needs analysis which was well informed and relevant.

For example, in Mozambique it was clear, through these needs analyses, to the implementing agency, ADDP, that the intervention should start in the province with the most needs educationally, socially and administratively. The first group of Pedagogical Workshops were established in Manica province where there were 676 primary schools,

many located in isolated areas. In addition many teachers didn´t have a proper education and their academic results were among the lowest in the country. Therefore, ADPP developed a programme in coordination with the provincial department of education (DPE Manica), by which a considerable number of primary school teachers in the province had the opportunity to be involved in a 3 year in-service training. The programme aimed to increase the knowledge and skills of 559 primary school teachers and develop 26 model schools with improved educational conditions connected to 13 pedagogical workshops in 10 different districts in the province.

In Ethiopia it was the result of a 2008 study by the Ministry of Education that led to the CRCs being strengthened through a new intervention. The study revealed that nearly all (29 of 31) CRCs (Cluster Resource Centres) sampled were not adequately prepared to run well organized, inspiring and transforming CPD activities; there was a high turnover of CPD facilitators; there were time constraints on teachers as well as their school leaders and inadequacy of minimum resources. These were the most pertinent problems rural teachers faced in implementing a CPD programme.

4) *Assess the existing CPD support system if there is one and its effectiveness*

Similar to points in 2) and 3) an assessment of the sector where the key intervention will take place is necessary too. In the China example, SBEP was based on a study of the current situation of teacher support in project counties. It found that the existing teacher support at the inception stage of SBEP was too weak to meet teachers' needs in professional development. The major challenges at that time could be summarised as follows:

- The training or support provided to teachers in remote areas was ad hoc and often just "one offs" as the TROs, in all counties, were overstretched and under resourced. A well-structured and sustainable teacher support system needed to be set up.
- Lecture was the dominating teacher training approach. Teachers had little chance to have a say or share their experiences. The mechanism for interaction or feedback between teachers and their supporters was weak or absent.
- The provision given by teacher supporters was irrelevant to local teachers as most of the training content were copies from provincial or prefecture level training with little adaption according to local context. Therefore training did not help teachers meet the challenges in their practice such as teaching large classes, teaching in bilingual or multi-grade or both contexts.
- The capacity of the teacher support provider needed to be strengthened. There was no policy, plan or financial support for the professional development of TRO staff at county level. Teacher educators and supporters needed to update their ideas, knowledge and skills about teaching and learning, particularly in the process of the national new curriculum reform.
- The teachers working in Village Schools and Teaching Points in the remote areas couldn't be reached by the current system due to lack of human resources, difficult terrain, complicated logistics and lack of funds.
- Teachers in project counties had never heard of a TLRC or any other forms of resource centres for teachers. There was a strong need to develop and use relevant distance education resources and local teaching resources.

And therefore the SBEP was able to develop strategies and activities to confront these challenges and design a TSS that would be appropriate to the context by:

- Building up a shared understanding of TSS and develop a framework for function
- Getting CEB's approval through policy-making and support in administrative management of the TSS
- Setting up and institutionalising the township TLRCs
- Capacity building of county trainers
- Identifying county and township level support to sustain the system and embed good practice through TLRCs
- Developing and managing resources for teaching and learning at township TLRCs
- Monitoring and evaluation of the TSS

5) Establish a management committee which involves key stakeholders

Again it is seen that in order for a TSS to be successful it needs shared understanding and involvement of all the key stakeholders. This is primarily done through working groups or management committees as was seen in the Romanian case study. The stakeholders here were very much involved in the Mentoring System introduced as the TSS. This was done through a management structure as can be seen in figure 1 and described below.

- The Ministry of Education, Research, Youth and Sport initiated the Rural Education Project and assured overall project overseeing. MERYS' management department for projects with international financing was responsible with general project management. The department assured the coordination with other ministry departments and institutions subordinated to the ministry.
- The County School Inspectorates hosted the county project management units and closely cooperated with them for implementing the REP. School inspectors coordinated with mentors on scheduling school visits, joined mentors whenever possible, assured coordination with the local Teacher Houses activities and organized follow up activities.
- The technical assistance designed the training programme and the teaching/learning materials, in close cooperation with selected teachers, inspectors and ministry experts. It was also responsible for training mentors and monitoring and evaluating their work.
- Mentors implemented the school-based teacher training programme and evaluated participating teachers. Teachers participated in training activities and organized themselves for continuing training activities at school level.

6) Develop a framework of TSS to guide the implementation of the programme

A framework for a TSS cannot be considered in isolation but as an integral part of national education strategies and teachers' career pathways. It is important that a TSS framework aims to promote the benefits of CPD, helps teachers make the most of the choices available in a flexible and equitable way, and builds institutional capacity for effective professional development.

In the Ethiopian case study a CPD framework was designed based on a 2008 study that had examined the structure and implementation of the current CPD programme and came up with the following recommendations.

- Develop a clear, transparent and self controlling CPD structure which clearly stipulates terms of references for responsibilities for how CPD should be run, evaluated and improved.
- The goals and objectives of the CPD programme should be clearly defined and delineated so that stakeholders build shared visions and understanding among themselves and there is no room for ambiguities, uncertainties or excuses for not implementing it.

- CPD structure and outcomes should be regularly monitored and evaluated. The existing collaboration between TEIs (Teacher Education Institutes) and schools through practicum could be used to develop monitoring and assessment systems for CPD.
- Guidelines must be produced to synchronize CPD with the career structure.
- Raising awareness of CPD at schools and teacher level is important.

These recommendations as well as the results of other similar studies were used as a basis for developing a new framework for CPD. The new CPD frame work was developed in 2009 with the objective of providing teachers throughout Ethiopia with a clear structure and rationale for CPD.

Importantly the framework links teachers' career ladder with their professional competencies and appraisal. In this framework, CPD is considered to be delivered through two modalities. These are school based CPD and Cluster based CPD.

7) Learn from successful programmes in similar countries. Search for ideas for structure, content, and materials developed in those programmes.

Often education interventions are based on successful programmes from other countries. However, a caveat should be sounded here, as there is also a danger that not enough time and consideration is given to adapting models from another context to the new context so they are grafted onto an education system without due thought and ultimately fail.

In the examples studied by INRULED and IICBA this was not the case as the programmes assessed the situation clearly and had clear aims and goals. They were able to adapt to the context. So, in Ethiopia although the CPD structure was based on the best national and international practice, it was designed to function in the Ethiopian context.

In the case of Cambodia it is seen how good pilot school clusters established in the 1990s under UNICEF, were implemented through the 'NGOs Consortium' and International Rescue Committee (IRC) working with Provincial Offices of Education in four provinces representing the four target areas: rural, urban, frontier and minority. These pilots were also based on similar interventions taking place in Thailand at the time and the lessons learnt from these programmes. In the case study it is seen how these pilots expanded to become a national programme involving more and more provinces and covering the primary sector.

Step Two: Implementation of the TSS

1) Identify and select the institutions and personnel to deliver the support

Research indicates that support systems for teachers are most likely to succeed when local education bureau administrators are committed to and exercise leadership in establishing and implementing any type of support activity. Without the direction and support of the leader, even the best intentions can fall short of expectations.

On the SBEP in China, to ensure the goals of the support system were met, all support providers needed to be properly selected and trained. These support providers were called County Trainers and a series of training inputs were delivered to teach and work with adults. Personnel were organised so that the following teams existed:

- Management and Technical Assistance Teams at county level: CEB director, staff from divisions in CEB such as TRO, Distance Education Office or Continuing Education Office; staff from Teacher Training School and key teachers from schools in the County town.
- Personnel in the TLRC at township level: Head-teachers from Centre School and Village Schools, directors of teaching affairs in schools, a group of key teachers.

The selection of County Trainers focused upon the experienced teachers who met the following criteria and exhibited a desire to share personal and professional knowledge and experience to help other teachers grow in the profession. In general, the SBEP project counties chose those who:

- are respected by both peers and administrations as a role model in the profession;
- have strong interpersonal relationships or skills.
- are able to develop a trusting, respectful, and confidential relationship;
- demonstrate curiosity and an eagerness to learn.
- have relevant experiences of teaching in very remote areas.

In China, CEBs played a critical role in the success of the teacher support system because they are the body that takes responsibility for teacher recruitment, INSET and providing support for teachers CPD and assessing the performance of their teachers. The CEB's leadership in the TSS was essential in developing and achieving support system goals. In the SBEP context, where most of the current teacher support systems were weak, the CEB's acknowledgement of the importance of the TSS provided a sense of direction to the townships and schools. It played an important role in the process of clarifying the roles and responsibilities of the different institutes involved in teacher support system and in communicating their importance to experienced and newly qualified personnel.

In Romania mentors were selected based on their prior teaching and training experience and knowledge. They were trained in mentoring, adult learning, and the ability to identify and communicate best practices. During the training, of great importance was the development of future mentors' interpersonal skills that would be needed for both challenging and supporting teachers.

The mentor's profile that guided selection criteria was:

- senior teacher with substantial, successful teaching experience;
- information communication technology skills;
- qualification as a trainer with training experience in other projects;
- good interpersonal skills;
- ability to work in teams;
- analytic skills and creativity;
- driving license and willingness to drive in difficult conditions.

The selection was publicly announced in order to ensure a transparent process. About 400 shortlisted candidates were asked to send applications. The applications were desk-reviewed by a commission set up by the education ministry and assisted by the technical assistance providers. In the end, 28 mentors were selected for the pilot phase

and 118 mentors for the main phase of the programme. In addition, subject trainers were selected, but in the end they were not used, since schools and teachers did not ask for their support.

2) Capacity building and training of trainers/facilitators

A key aspect of any reform and particularly, education reform is being able to build capacity of personnel to ensure a level of sustainability. This is often done poorly because: the inputs are too short; there is no ownership or shared understanding of the reform; the trainers/ educators responsible for building capacity are not well trained or supported; the training mode and materials are unsuitable or irrelevant. However, in the five case studies it is seen that personnel were well prepared and supported so that these issues did not occur.

On the SBEP it was essential that teams were prepared and trained before running the TSS through the TLRCs. A series of training and workshops were organized and delivered to the County Trainers. Specifically, these trainings included:

- Background and concept about TSS in the SBEP and County Trainers' role in it
- Skills to conduct and manage teachers training (Training of Trainers)
- Effective classroom observation and feedback
- Mentoring skills
- Classroom action research

On the REP in Romania the mentors' training and development programme included: (i) direct training, (ii) on-line training and assistance through an e-learning platform; and (iii) participation in conferences for experience sharing and problem solving.

The direct training: The topics addressed during the direct training were:

- how to assume the mentor's role;
- communication skills and building interpersonal relationships;
- how to plan, organize and deliver a training session;
- peer training and coaching;
- simulation activities for self-evaluation;
- needs analyses;
- mentors' portfolio and the mentors' kit;
- training programme management;
- instruments for evaluation, monitoring and reporting.

The on-line training and assistance was an important channel in the process of continuous learning, communication and counselling. The e-learning platform had several applications/functions:

- differentiated log-in interface linked to a data base;
- real-time chat/forum window/discussion board;
- real-time documents presentation window (power-point, etc.);

- public documents folder (for downloading materials from a library);
- announcements folder;
- tutorials for users on how to use the system;
- application for designing training courses and evaluating participants.

3) Develop support materials, including training module, handbook or manual for trainers/facilitators

On the Romanian REP a group of experts was selected to develop the training curriculum, modules and materials. The most innovative training materials were the videos of classroom experiences with good and bad examples of lessons. The scripts of all videos were collectively developed in order to assure coherence. The videos were filmed in real rural schools, with teachers and students playing as actors, since no school accepted recording a real classroom lesson.

The draft curriculum, modules and materials were subject to a three steps reviewing process.

a. The draft curriculum was discussed with representatives of the National Center for In-Service Teacher Training (NCITT), the accreditation institution for all training providers and programmes, in order to get early feedback.

b. Experts (professors from universities delivering initial teacher training and senior education specialists) reviewed the draft curriculum, modules and materials and offered comments and suggestions. In this way, products were improved and also received an academic endorsement.

c. The modules and materials were used in the first round of the mentors' training. Mentors were asked for feedback, based upon their analysis and their field work. They suggested improvements and got involved in modules development offering examples from their actual experience.

The final curriculum together with ten training modules and four video-scripts were submitted to the NCITT for programme accreditation. After accreditation, the modules were printed and delivered to all school/clusters involved in the national phase of the programme.

The training modules promoted interactive teaching/learning and included tools for assessing student progress using different methods, taking into account various ways of learning. All modules were structured in three parts: (i) the first part offered the theoretical background of the topic, with information presented in a friendly way, easy to be assimilated; (ii) the second part facilitated knowledge absorption through group discussions; guiding questions were offered for reflection, discussion among teachers and agreement on the suggested answer; (iii) the third part dealt with individual planning and classroom application; guidelines on how to include the topic in the teacher's classroom activity were presented; mentors offered assignments to teachers for applying the new knowledge in their classrooms.

The topics of the ten modules developed under the mentoring programme were:

- interactive student-centred teaching;
- continuous assessment in the classroom;
- learning about student backgrounds;

- adapting the curriculum to the rural environment;
- multi-grade teaching;
- remedial reading (primary level);
- remedial mathematics (gymnasium level);
- Romanian as a second language;
- using computers to teach and learn;
- school leadership and management (for head teachers).

4) Set up a mechanism to mobilize resources and personnel to deliver support

As is seen in all the five case studies some form of resource centre was established at local level in reach of teachers and supported by trainers, mentors or supervisors. Setting up resource mechanisms is essential to the sustainability of an intervention and without one it will fail. This requires strategic, organisational and operational planning which would include: developing overall implementation plans, individual work plans, establishing roles and responsibilities, selection and appointment of personnel and building collaborative partnerships between a variety of institutions and personnel.

In Romania the REP found that solving the transportation issue essential for mentoring activities in rural areas. Geographic constraints (isolation, flooding, poor infrastructure) and lack of transportation lead to the isolation of rural teachers from a variety of professional development opportunities accessible to their urban schools colleagues. Once mentors could use a car, they could travel and reach remote rural schools.

Mentors were able to travel to distant places with the cars procured for each of the 41 counties. Cars became real mobile resource centres, as a result of the equipment and materials they carried. In addition, 463 fixed resource centres were established and equipped. In this way, the training of rural teachers was facilitated and even those from the most remote areas could benefit from various learning materials.

5) Identify and embed some feasible and relevant CPD activities

As has been shown by the INRULED and IICBA research CPD policy and practice is most successful when the social context of the adult learning is considered and that is why ongoing school-based teacher professional development activities are most successful, specifically in rural and remote areas. They allow for a richer learning experience than is offered on short courses.

There are a number of school-based CPD activities which have been tried and tested in different contexts but here the focus is on those experienced in the case studies, for example:

- in-service teacher training (modules)
- mentoring,
- modelling/demoing,
- observation and providing feedback to others
- action research

I. Teacher Training through INSET

In China on the SBEP, INSET courses were implemented in different ways in the TSS:

INSET through the township TLRCs

The TLRCs were based at Centre Schools in townships. Teachers from Village Schools and Teaching Points in that township were invited to attend INSET at the TLRC. The INSET was conducted by County Trainers. Examples of INSET activities being provided were:

- SBEP modules not covered in the 15 days training set down by the project
- Units from SBEP modules
- Model/demo lessons relevant for rural contexts
- Micro-teaching
- New topics that County Trainers have learnt and practised from other training
- Professional discussions on new topics or on classroom issues raised by teachers

INSET at school-base

This INSET was initiated by key teachers in the school whether it was a Centre School, Village School or Teaching Point. Key teachers with the support of the head teachers run the INSET. A typical activity was observation and feedback, either by a senior, more experienced teacher or by peers. Other forms of school-based INSET were demo lessons for less experienced teachers or sharing skills learnt from external training.

External INSET

The third type of INSET occurred at an external venue either at county or provincial level, for example, rural teachers visiting a provincial (city) primary school. This was the responsibility of the county TLRC to organise through the township TLRCs with the support from the province team. It provided teachers with 2 or 3 INSET days a year where they were introduced to the latest pedagogic developments and resources. The provincial trainers were responsible for organising the content and training.

II. Mentoring

The Romanian case study focused on the Rural Education Project where mentoring was the key intervention. The basic structure of the rural teacher support system implemented under the mentoring programme was:

1. development of the mentors' training curricula, training modules and teaching/learning materials;
2. mentors' selection, training and recruitment;
3. setting up mobile and fixed resource centres;
4. mentoring process in schools;
5. certification programme;
6. monitoring and evaluation (M&E).

On the SBEP County Trainers were identified as mentors and appointed to provide support to the township TLRC and a certain number of village schools. Normally mentors worked in pairs and worked with one township TLRC. A number of teachers in the neighbouring village schools were identified and built up relationship with these

mentors. Mentors made their plan of visiting schools and teachers every school year and kept a record of their work. The Mentoring models adopted in SBEP TSS included:

(i) Mentoring for Induction

Mentors were the County Trainers who either were experienced teachers or Teaching Research Officers with rich teaching experience and with a supportive and encouraging attitude. The mentees were the new teachers or less experienced ones to the school. Experienced and inexperienced teachers were paired so that new teachers were supported professionally in their induction year.

(ii) Mentoring for Progression

This model was used to support professionals who may have been teaching for a long time but now have more responsibilities or new challenges, for example, new curriculum and new methodologies. So the mentoring helped teachers to respond to the demands of their new role, to understand the responsibilities it brings and the values it implies.

III. Action Research

As part of the TSS on the China SBEP some schools began to use Action Research as part of their professional development, both for individuals and at an institutional level.

Classroom action research in this context referred to a practical way for teachers to look at their own work and to check it as they would like it to be. The benefit of this type of action research was it helps a teacher to formalise their learning and give a clear and justified account of their work, not on a one-off basis, but as a continuing regular feature of their practice. Teachers in a school were grouped according to the subject or grade they teach. Each group or individual made their classroom research plan. The topics the teachers studied were the challenges teachers faced in their real life, such as:

- how to improve the oral communication competence in Chinese of ethnic minority students,
- how to motivate students in studying Mathematics,
- how to support students learning through a meaningful way etc.

County Trainers provided assistance to the research groups or individual teachers by phone calls and their field visits to schools.

As a CPD activity it has relevance for the rural context in that it is collaborative and can provide intrinsic and extrinsic motivation for teachers. It does this through giving teachers the opportunity to explore and discover both practical and theoretical aspects of teaching and learning through working with their peers and students, thereby building their confidence and increasing their sense of self esteem as a professional person. Three reasons explain why action research can be an effective model for teachers' professional development:

(i) it is inquiry-based, and allows teachers to investigate their own worlds;

(ii) it is aimed at the improvement of teaching and learning in schools;

(iii) it leads to deliberate and planned action to improve conditions for teaching and learning.

IV. Peer observation and feedback

Peer observation and feedback played a key role on the SBEP in China and provides an excellent example of how observation and feedback was used effectively supported rural teachers' professional development.

Box 1. SBEP in China: Peer observation and feedback

Peer observation and feedback: SBEP, China

Critically it differed from the district school inspection system in that it focused on **formative development rather than on evaluating teachers,** where the evaluation was more often than not destructive rather than constructive.

Observation forms were **designed in a participatory manner and with developmental and research purposes in mind. Thereby developing practice through classroom observation and feedback. Through** this observation and feedback system teachers, trainers and head teachers were able to collect qualitative data on how teachers were developing as the project progressed. The observation and feedback also linked with the participatory training methodology and content that was another activity and part of the teacher support system.

The purpose of the observations was for trainers, head teachers, key teachers and peers to be able to support teachers in their professional development through observing how teachers:

- develop confidence as teachers
- put into practice the new methods they have been taught
- develop these practices in order to improve their teaching
- develop these practices in order to improve students' learning outcomes
- show an awareness of gender, cultural and learning differences
- develop confidence in their relationships with each other and with different colleagues from different institutes

The purpose of giving oral feedback (as well as written) was for trainers, key teachers, head teachers and peers to support teachers through:

- Giving constructive feedback which focuses both on what is positive about the lesson and what needs improving in the teacher's skills and behaviour
- Encouraging a professional dialogue through using the feedback system described in this manual
- Giving teachers time to discuss classroom issues through this feedback system
- Ensuring that no one person dominates the feedback session and that everyone involved in the observation has the opportunity to contribute constructively to the feedback session

V. Demoing/ Modelling

In all five of the case studies capacity building was fundamental and the use of trainer trainers to train teachers using effective cascade methods. One such method commonly used by all is modelling, also known as demoing. It has been proven effective in improving teachers' skills, attitude and behaviour. The modelling is usually done by a more experienced teacher or as part of the cascade training whereby teachers who have undergone training share their experiences in a practical way. The sharing of practice in this way is highly effective if planned and delivered well. This means:

Before the demo lesson:

- disseminating the lesson plan for pre- discussion with other teachers;
- disseminating observation and feedback tools to teachers observing the lesson and checking understanding of both the plans and the tools;
- giving guidance in how to observe – this may sound rudimentary but many teachers are unfamiliar with observing others and need to be guided in their observation skills;

During the demo lesson:

- Observing the lesson using the observation tools and following observation guidelines;

After the demo lesson:

- Peer feedback, led by the 'demo teacher' – this is an analysis of the lesson with constructive feedback.

The post lesson dialogue is possibly the most important part of modelling as it can provide and develop rich professional dialogue with rich descriptions of practice, attention to evidence, examination of alternative interpretations and possibilities. As teachers learn to talk about teaching in specific and disciplined ways and to ask hard questions of themselves and others, they create new understandings and build a new professional culture. Over time, they build a stronger sense of themselves as practical intellectuals, contributing members of the profession, and participants in the improvement of teaching and learning.

VI. Experiencing and Reflecting

'Experiencing and reflecting' can be seen as the umbrella for the above activities because they work in synthesis with these CPD activities: observation and feedback, action research, peer learning, mentoring and coaching. 'Reflection' assumes commitment too: commitment to improving your teaching skills and developing your knowledge in order to provide quality education for your students and doing this through critically reflecting on your own practice. Therefore building and maintaining this commitment should be integral to a support system for rural teachers.

6) Pilot, learn and scale up

In all five case studies there was an element of piloting the initiative first before scaling up. The size and length of the pilots varied in each country. In Cambodia the initial cluster school were piloted in four key areas: rural, urban, frontier and minority for a couple of years before scaling up to other provinces and came at a time of big national reforms.

The school clustering in Cambodia is a good example of how the stakeholders are constantly learning and improving and extending the system and shows how there is a need for flexibility because these initiatives are organic, ever moving and growing.

When the REP was designed, the school-based teachers' professional development was not used in Romania as an alternative to the conventional centralized training. The piloting phase of the mentoring programme was very important for preparing the main phase, by testing and further refining plans, instruments, procedures and materials.

The number of schools involved in the pilot phase in Romania had to be sufficiently large to prove the validity of the approach in a variety of settings. It had also to be sufficiently small to allow close monitoring and analysis. Consequently, rural schools in six of Romania's 41 counties were included in the pilot. During the pilot phase, 1,067 teachers attended the mentoring programme. This represented 93 percent of the total number of primary and lower secondary teachers in the six pilot counties.

After the successful completion of the pilot phase, a conference was organized, attended by mentors who had already worked in pilot schools and the newly recruited mentors needed for the nationwide scaling up of the programme. The mentors from pilot counties presented their experience and shared with the new mentors examples of good practice. Discussions were organized in order to review tools used in the programme and to make improvement recommendations.

Step Three: Monitoring and Evaluation of the TSS

1) Deciding how

Monitoring and evaluation or assessing the impact of an initiative on the individual and on the whole school/ institutional development is often the weakest part of the chain of planning activities. Therefore it is important to do it well. Recent research has found that impact evaluation is effective when there are clearly pre-defined outcomes and a suitable method for collecting evidence of its impact.

Monitoring should be focused both on quantitative and on qualitative issues. Although collecting quantitative data is easier, its relevance is limited unless it is complemented with qualitative information such as: the impact of teachers' participation in the programme on their skills and competencies; the teachers' perception of the quality and relevance of training modules and materials; teachers' appraisal of various elements of the mentors' activity (delivery of training, mentoring, coaching, tutoring).

All five case studies in the INRULED and IICBA research had a monitoring and evaluation framework which used suitable methods to measure progress. These are now analysed in more detail.

2) Create a framework for monitoring and evaluation

In the Romanian case study M&E was performed through a sophisticated system of monitoring visits and reporting. In particular, portfolios proved to offer useful information regarding the activities conducted by teachers and mentors.

During monitoring visits, several activities took place: interviews with school principals, discussions with teachers, observation of training sessions delivered by mentors and review of the mentors and teachers' portfolios. Portfolios were an important source of information on the extent and quality of work in schools, since they collected evidence regarding the training sessions, lessons plans, training needs analyses, memos of the professional discussions between teachers and mentors, individual professional development plans, progress record reports for each teacher, teacher and mentor joint reports on the level of professional development that has been achieved and an evaluation sheet for each teacher.

In the Ethiopian case study the Cluster Resource Centres were also used as part of for monitoring and evaluating teachers. Supervisors were assigned to each CRC and provided teachers with the necessary professional support;

this was one of the most important activities of the CRC. Supervisors coordinated CPD programmes in their assigned CRCs. This function also included M&E through classroom observation and feedback; advice and guidance, sharing experiences and increasing teachers' motivation through creating better work environments and appreciating work done.

One of the other major tasks of supervisors was school visits. Supervisors visited schools regularly for the continuous support of teachers. When they visited schools, they observed teaching as well as other aspects of classroom activities. They sat with the teachers and discussed the problems that they face in carrying out classroom activities systematically. The supervisor focussed on classroom observations, feedback meetings and discussions which took place each week. This was followed by a regular report. After every activity or school visit, supervisors prepared and submitted reports to the Woreda Education Office.

3) Develop M&E tools

M&E tools are used to gather evidence to prove that an intervention is successful or not or to evaluate the impact of a new initiative.

On the REP reports were seen as a key M&E tool because for such a large-scale activity, with many persons involved in parallel in various activities, reports proved to be the most efficient. All reports were prepared in a standardized format, which was developed before the piloting phase and was improved after it. The reports described in detail the daily activity of the mentor: when, where and with who did the mentor work and what he/she did. Official documents signed by school principals confirming the mentor's presence in the school/cluster and the time spent were also regularly collected.

Other M&E tools used on the REP were:

- Reports with teachers' feedback on the training sessions and other activities
- Questionnaires collected specific information on how the mentors conducted their activities
- Certification: The monitoring activity certified the mentors' professionalism, their capacity to work in difficult conditions, travelling to distant places, adjusting to unexpected situations, such as adverse natural events (floods, heavy snowfalls, storms etc.), epidemics or even teachers' strikes.

4) Create a reporting system, when to report, what to report and to whom

In the case studies a number of reporting systems are seen from bottom up and from top down. Most try to follow a hybrid model in which both are used so that information is reaching all levels and being used in an effective manner.

In Ethiopia it was seen that they moved from a very traditional hierarchical system of reporting to a hybrid one and found that the more local the reporting system was the more effective it was. The CRCs provided follow-up support after each training and workshop, with the cluster supervisor visiting satellite schools to support teachers. One supervisor was assigned to support teachers in five schools. He/She is expected to visit a school at least once in a week.

During the visit the supervisor has meetings with teachers, school management and students. The meetings, particularly with teachers, held after a series of classroom observations, focus primarily on the classroom interactions among teacher and students. These supervisors' support is very much appreciated by teachers.

The reports of field visit done by the regional education bureaus and federal ministry of education reveal that teachers are positive to supervisors' visits and witness that they have improved their teaching skills as a result of the visits.

5) Organize conferences or reflection meetings periodically

On the Romanian REP, the mentors' conferences offered another opportunity for sharing good practices and for raising the quality of mentorship across all the 41 counties. Conferences for mentors were organized during the pilot and the national phase of the programme. During the pilot phase, the conference was focused on what had to be revised in order to optimally start the national phase. During interactive workshops, participants had the possibility to make recommendations, which were taken into account in the final version of the mentoring programme. In order to encourage the inclusion of the new interactive teaching methodologies in the initial teachers training, the conferences were supposed to be held in universities, with university staff participating in discussions and in evaluations of new activities taking place in schools. This stipulation from the initial project design was only partially fulfilled.

6) Use the information from the evaluation to further improve CPD at all levels

Again in the Romanian study reports allowed the REP project management in Romania to constantly monitor progress towards the achievement of the intended targets in terms of number of clusters visited, schools and teachers benefiting from mentoring, etc. Remedial measures could be immediately taken when targets were not reached on time.

Section 6

Principles for Developing a Teacher Support System

As part of establishing a shared understanding between key stakeholders in the process of developing a TSS, it is recommended that a set of principles is agreed upon. Below are eight principles drawn from the experiences of the five case studies.

Principle 1: Involve teachers in planning programmes.

- Teachers should be involved in the planning of both the structure and the content of TSS to ensure that their needs and their students' needs are being addressed.
- School heads and regional or district officers responsible for supervising, supporting, and evaluating teachers should also be part of planning and implementation and should understand reforms thoroughly.
- Teachers should be recognised as professional people who come with experience and ideas.

Principle 2: Include all teachers in learning opportunities and base most of the in-service programme at the school or school-cluster level.

- All teachers should be involved in professional development activities on a regular basis.
- CPD activities should be planned and implemented primarily at the school and school-cluster level to be effective and cost-effective.
- Education budgets should be decentralised so that schools have a budget line for CPD activities at school-base.
- CPD should be integrated and an integral part of School Development Plans.
- There should be CPD Action Plans developed before the start of a new school year.
- Ministries in charge of Education should ensure that CPD is linked to an appropriate career structure and that teacher support systems consider not only extrinsic motivation but also intrinsic motivation.

Principle 3: Support and capacity building must be given to teacher educators/facilitators to ensure sustainability of TSS

- Processes to prepare teacher-educators must be based on practical issues related to the day-to-day work in the classroom.
- The work of teacher-educators must include not only teaching, but also research directly related to their area of expertise.
- Teacher-educators must know and understand the institutions where they work and where their students will work.
- Teacher-educators must know the national education system in depth, and must understand the context in which it is implemented.

- Teacher-educators must know how to work in teams and collaborate in their work.
- Teacher-educators must enjoy teaching. This disposition will generate a positive attitude towards teaching in their students.

Principle 4: Make sure there is a mechanism of mobilizing resources and facilitators in place which could provide continuous and follow up support to teachers.

- A TSS framework should be developed as a guide for the implementation.
- Institutions and individuals involved in the system should be clear about their roles and responsibilities.
- Centralised training sessions, periodic workshops and school- or cluster-based activities should be structured and scheduled properly and be part of an overall CPD framework.

Principle 5: Incorporate strong instructional leadership by school administrators and local supervisors.

- School administrators and supervisors need to be trained in parallel or combined in teachers' CPD activities, which enable them to exercise instructional leadership, that is, provide guidance and pedagogical support to teachers within their schools, clusters, or districts.

Principle 6: Take the whole-school approach and link teacher in-service to a more holistic school improvement planning.

- Involve all staff in the development planning to give support and momentum to implement new curriculum and new methods.
- Integrate CPD activities into school development planning.
- Emphasis should be given to affective areas as well as to knowledge content and pedagogical skills to include modules, such as, Inclusive Education and Equity and Education
- Teacher educators should behave and educate in an empathetic and humanistic way.
- There should be a humanistic ethos to CPD.

Principle 7: Successful participation in CPD courses and activities provided by the support system should receive official recognition by the ministry or local authority.

- A system of formally recognizing successful participation in an in-service teacher professional development programme should be put in place as part of the overall programme design.
- A CPD framework should be developed with accredited modules to provide incentives for teachers. This would link to teachers' career pathways and the human resources department.

Principle 8: Consider budget implications of building realistic and sustainable support system.

- Set achievable goals of the TSS;
- Prioritize the challenges or problems to address;
- Make sure the resources go to the targeting group.
- Funding for CPD should be made mandatory and be a separate budget line in all schools.

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Annexe

Case Studies of Good Practice

Case Study 1

Cluster-based Support System for Rural Teachers' CPD: The Case of Ethiopia

Background to the Initiative:

The Ethiopian education system had many problems when the present government took power in 1991. The gross enrolment ratio was under 20% overall and under 10% for girls. The quality of education was poor, there were great regional disparities and the curriculum was not responsive to the needs of the learners and the country's diverse communities.

Responding to these challenges, the Transitional Government of Ethiopia in 1994 prepared the New Education and Training Policy, which forms the foundation of school development in the country. The major objectives of the policy are enhancing the quality of education, particularly at the primary level, by improving the conditions of the school environment, upgrading teacher quality, developing new curricula, and constructing schools.

Education is expanding rapidly and is now reaching many previously underserved children. Yet with this expansion of enrolment quality has suffered. Generally, teachers have not been prepared to implement the new primary curriculum during their initial training. In addition, teachers are not specifically prepared to teach in large overcrowded classed and, as a result, they think student-centred learning cannot be practiced in the typical classrooms of Ethiopia.

In-service teacher development has several programmes in Ethiopia. One programme upgrades teachers at teacher training institutes or colleges to certificate or diploma level. Such training programmes are designed to provide teaches with another degree or higher pay and often do not provide adequate linkages and ongoing support with classroom practice. Another programme, the one traditionally used in Ethiopia, is a large, centralized one-time mass training workshop. This cascade model of in-service training is wildly documented to have little positive effect on teachers' classroom practices.

The school- and cluster-based teacher professional development programme

The ideas of the cluster programme were introduced in 1995 by the Basic Education System Overhaul (BESO) project. The goals of the Project were to strengthen quality and access in basic education through system-wide reform, including reform of curriculum and instruction as well as strengthening of decentralized management.

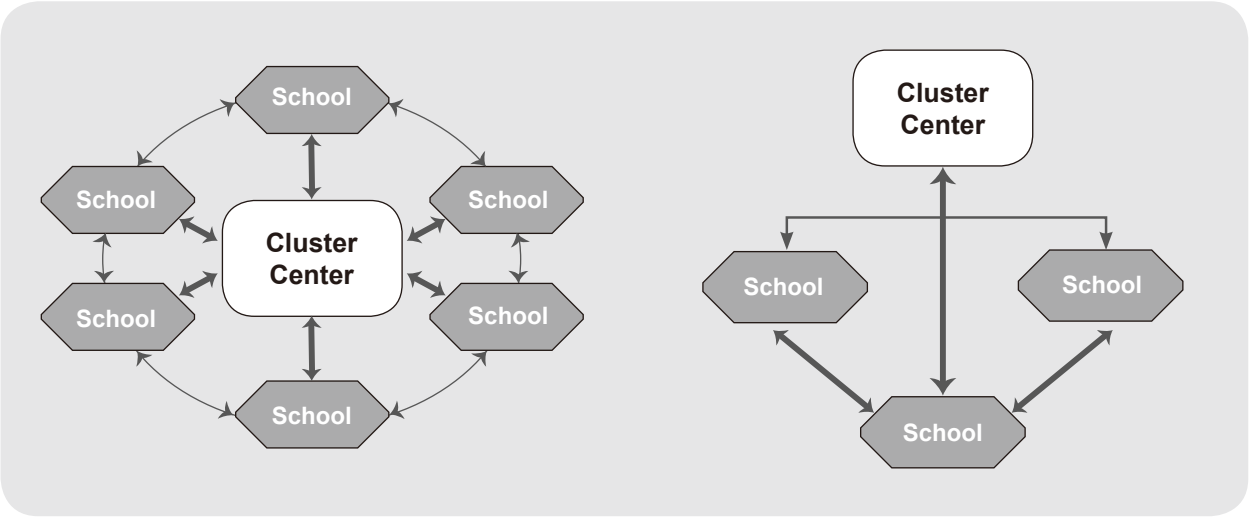
The objectives of the teacher professional development component of BESO were to support teacher capacity to teach effectively according to the new active-learning-based curriculum by developing a cluster-based teacher professional development support system.

Two regions (Tigrai and SNNP) in collaboration with the BESO Project started site-based professional development pilot programmes in 1997. The cluster-based programme which included all teachers in professional development

activities was immediately popular with teachers. The regions agreed to expand the pilot in subsequent years. In Tigrai Regional State, the cluster-based model became regional policy in the third year and was gradually expanded to all schools by the fifth year of the programme.

Organizational Structure of the Programme

- School cluster forming a circle: This type of clustering is used when the schools geographically surrounded the centre. In this form, schools not only develop a relationship with the centre, but also carry out curricular and co-curricular activities among themselves.
- Schools at different distance from the centre school: In this model, schools are geographically dispersed and cannot or rarely can make an interrelationship among them but only with the centre.



The selection of the centre school, sometimes called a Cluster Resource Centre(CRC), has three benefits. First, the school can serve as a focal point for training, with teachers traveling a shorter distance than to the woreda centre to receive training, thus reducing time wasted in travel and reducing the cost of training since per diem is not paid. Second, the CRC is usual better endowed with equipment and facilities and ,thus, has resource to share with the satellite schools; Third, the CRC can serve as an administrative focal point for woreda/district education offices to communicate with and receive messages from satellite schools.

CPD Activities Conducted through the Cluster-based System

A series of formal and informal development activities were conducted at cluster schools. The educational workshops or training sessions are the formal aspect of teacher development. Training materials were written by project staff, education bureau staff, teacher educators, and excellent primary teachers who were experienced in active learning methods. Workshops were carried out with writers to ensure that the materials were interactive and not based on lecturing to the teachers. In each cluster meeting the teachers focused on one or two new ideas or skills that they saw modeled, which they discussed, practiced, and role-played. They then made a commitment to try one or two new approaches in their schools over the next few weeks before returning to the next cluster meeting. In each cluster workshop, there was discussion and reflection on the implementation of the skills introduced at the previous workshop.

Most of the time the trainings and the workshops are arranged during weekends and semester breaks. Teachers were not paid for attending the workshops, either per diem or transport, but they were provided with lunch on both days.

The sharing of experience and ideas between peers and colleagues is the informal aspect. This informal interaction among schools is one of the most significant benefits of school clustering. In addition to training workshops and experience sharing meetings, most of the school clusters are working on the following activities:

- Supervision
- Academic and sport competitions
- Preparation of model exam for specific grade levels
- Curriculum evaluation
- Cooperative/administrative work (cooperation by sharing personnel, equipment and learning materials)

Cluster Coordination

An important element for the efficient functioning of the cluster is a strong, representative coordinating committee. Every cluster has its own coordinating committee comprised of all head teachers in the cluster. Usually the committees meet monthly. They discuss improvements and evaluate the different aspects of professional development activities through the system. A cluster guide was developed that includes responsibilities of all levels of the system and the cluster coordinating committee.

Impact of the cluster-based teacher support system

Throughout the development of the programme, there has been a monitoring mechanism and impact evaluation exercise. The observed impacts of the support system were:

- Student participation in classroom learning activities has increased;
- Teachers cope better with their teaching conditions and their attitudes have changed from teacher-centered to learner-centered. Teachers teach effectively and have become more sensitive to the needs of their students. Communication and sharing of ideas among teachers in the cluster and participating schools through working together to integrate activities to their classrooms have increased.
- Woreda officers/supervisors are supportive of the process and are involved as trainers, observers, and evaluators in the programme; this strengthens the relationship between the supervisors and teachers by focusing on professional development.

Some Keys to the Success of the Programme

The Ministry of Education accepted the cluster programme as an approach to implement teachers' CPD programmes and expanded it all over the country in 2009.

- Federal and regional policies support the shift from the previous cascade model to the school-based cluster approach.
- Awareness creation and capacity building through different workshops organized for education officers and other relevant bodies have achieved coordinated efforts at all levels of the education system.
- Successful pilot programmes before expansion and through a limited expansion year by year, which allowed problem to be identified and addressed.
- Teacher ownership of the programme. Continuous needs assessment at the school level, continuous focus group discussions with teachers and school directors about the development of the programme, involvement of teachers at all levels and eventually administration of the programme by teachers through the cluster coordinating committees all contribute to the teacher ownership of the programme.

Case Study 2

Mentoring System for Teachers' Professional Development: a Case from Romania

Background to the Initiative

The political changes at the end of 1989 found Romania with an education system doing relatively well in terms of access to compulsory education, but with serious quality and relevance problems. After 1990, the Government of Romania (GoR) embarked on a series of education reforms. The reform projects meant to improve education quality, relevance and efficiency. For example, the Education Reform project focused on changing the education curriculum, evaluation, textbooks, finance and management.

Several studies found that inequalities of access to good quality education services between urban and rural areas was of considerable scale in Romania, due to the high proportion of the population living in rural areas (almost 45 percent in the 2002 population census). Great disparities were found between students' achievements in urban and in rural schools. The low quality of teachers, including the shortage in qualified teachers and the long-term under-investment in rural schools were identified as the main factors. The main reasons for the low participation of rural teachers in the conventional in-service teacher training were: isolation, distance to training centers; lack of transportation; costs incurred compared to teachers' salaries; difficulty in finding a replacement teacher during the training period due to the small size of schools.

In responding to these challenges, the Ministry of Education, Research, Youth and Sports (MERYS) took the decision to address the problem through a World Bank supported project, the Rural Education project (REP). In the REP, the basic idea was that through CPD rural teachers should improve their teaching, which in turn should enhance student achievement.

The Mentoring Programme in the REP

A school-based teachers' professional development sub-component, further called "the mentoring programme", was developed and implemented in the REP. The aim of the programme was to improve teaching and learning in rural schools by improving rural teachers' abilities, skills and knowledge particularly in the areas of new pedagogical approaches, classroom management and information and communication technologies.

The characteristics of this new approach for rural teachers' CPD can be summarized as follows:

- The training was delivered by mentors[2] instead of being provided by trainers in centrally located training institutions.
- Mentors would travel to rural schools to bring training to teachers, instead of having all teachers travel to a centrally located institution to get trained.
- Mentors' access to a solid car, which could travel long distances on difficult roads and in any season, was a key factor in the success of the approach.

[2] The term "Mentor" comes from Greek. In Greek mythology, Mentor was a friend of Odysseus and a tutor of his son, Telemachus. In time, mentor began to designate a wise person, who shares his/her knowledge and skills with less experienced colleagues.

- Mentors also used a different training approach than the one used by conventional trainers. Mentors didn't lecture, they guided. Teachers were actively engaged in finding solutions to challenges identified in classrooms.

The basic structure of the rural teacher support system implemented under the mentoring programme is (MERYS, 2006):

1. Development of mentors' training curricula, training modules and teaching/learning materials

A group of experts was selected to develop the training curriculum, modules and materials. The final curriculum together with ten training modules and four video-scripts were submitted to the National Center for In-Service Teacher Training (NCITT) for programme accreditation. After accreditation, the modules were printed and delivered to all school/clusters involved in the national phase of the programme. The training modules promoted interactive teaching/learning and included tools for assessing student progress using different methods, taking into account various ways of learning.

2. Mentors 'selection, training and recruitment

Mentors were selected based on their prior teaching and training experience and knowledge. The mentors' training and development programme included: (i) direct training, (ii) on-line training and assistance through an e-learning platform; and (iii) participation in conferences for experience sharing and problem solving.

The recruitment conditions were: mentors would be detached from their job and work full time; their salary would be higher than the previous normal teacher salary; the REP management office in the MERYS would contract them; after the project closed mentors returned to their initial jobs, unless they continued to be involved full or part time in subsequent projects.

3. Setting Up Mobile and Fixed Resource Centers

One of the most important features of the mentoring programme was the procurement by the project of robust cars, which were given to mentors. This enabled them to reach remote areas and also gave them independence from the fixed schedules and routes of public transportation. In addition, each mentor received a mobile phone to allow permanent contact with experts and management. Training equipment (laptops, video projectors, flipcharts etc.) were also provided and transported to isolated schools, as well as training materials.

463 fixed resource centers were also established in schools that became hub schools in rural areas. These centers received equipment (computer, video and TV station, overhead projector, projection screen, copy machine, printer) and supplies (paper, toner cartridges for printers and copiers etc.).

4. The Mentoring Process in Rural Schools

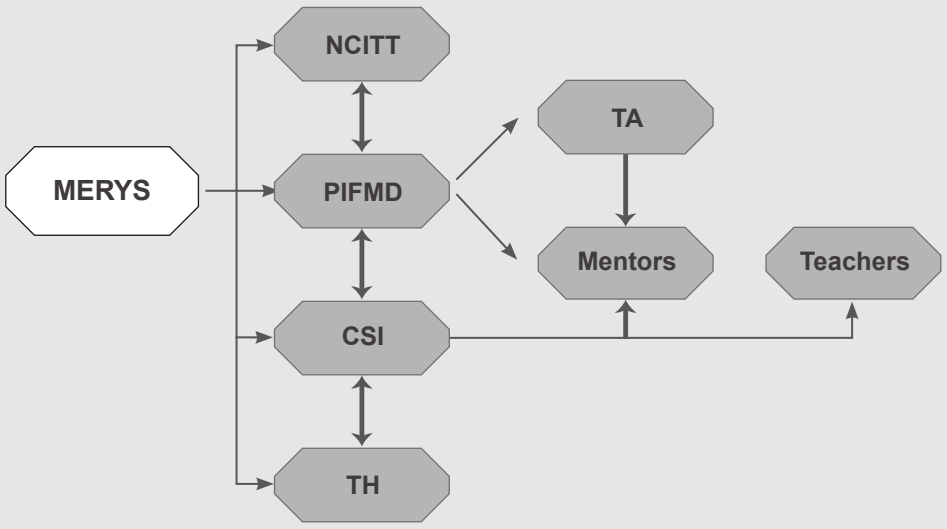
A team of mentors was formed for each of the 41 counties national wide. Two mentors were recruited for field work and two substitute mentors were selected and trained to be able to replace the other mentors, if needed.

The mentoring activity was a combination of cluster level direct training and school- based individual and teachers' group activities. The activity was structured in 3 cycles. During the first cycle, mentors organized direct training at schools/cluster schools; the cycle lasted 28 hours spanning over 3 initial days, followed by 2 additional days, scheduled after most participants have completed half of their classroom applications. During the second cycle, individual and/or group work was organized in schools; this cycle lasted 16 hours. The third cycle was represented by individual work: classroom applications and reflection; it lasted 52 hours.

5. Stakeholders' Involvement

The stakeholders involved in the mentoring system and their relationships are presented in figure below.

A School-Based Teacher Support System through Mentoring Programme



MERYS-Ministry of Education, Research, Youth and Sports
NCITT-National Center for in-Service Teacher Training
PIFMD-Projects with International Financing Management Department
CSI-County School Inspectorates
TH-Teacher Houses
TA-Technical Assistance

MERYS' management department for projects with international financing was responsible with general project management. It was also responsible with selecting and hiring the technical assistance, hiring the mentors and organizing their training, monitoring and evaluation and all other managerial tasks. The NCITT authorized the training programme and issued the certificates to graduating teachers. The County School Inspectorates hosted the county project management units and closely cooperated with them for implementing the REP. School inspectors coordinated with mentors on scheduling school visits, joined mentors whenever possible, assured coordination with the local Teacher Houses activities and organized follow up activities. The technical assistance designed the training programme and the teaching/learning materials, in close cooperation with selected teachers, inspectors and ministry experts. It was also responsible for training mentors and monitoring and evaluating their work.

6. Monitoring and evaluation

M&E was performed through a sophisticated system of monitoring visits and reporting. During monitoring visits, several activities took place: interviews with school principals, discussions with teachers, observation of training sessions delivered by mentors and review of the mentors and teachers' portfolios. The set of monitoring and reporting procedures included:

- mentors reports after each school visit and training session;
- school reports after each semester of training;
- quarterly reports to the REP management on the work of the mentors, the subject trainers, the response of rural teachers, and the effectiveness of the training given;
- synthetic reports on feedback from stakeholders on the training process;
- reporting to the project management following supervision visits to selected schools, with suggestions for improvement of the mentoring process.

Effectiveness and Outcomes

In quantitative terms, mentoring was conducted in clusters with teachers coming from about 8,400 rural schools and almost all rural teachers were trained. An important achievement of the mentoring programme was the appearance of communities of practice in schools. Thus schools start becoming a place where passionate and concerned teachers continuously learn how to improve teaching and learning, while regularly interacting.

A significant increase was found in the percentage of lessons with differentiated tasks/activities. While in the 2005 baseline study differentiated tasks/activities were organized in 42.4 percent of the observed lessons, in the 2008 final study the percentage increased to 72.3 %.

Lessons Learned

Solving the transportation issue is essential for mentoring activities in rural areas. Geographic constraints (isolation, flooding, poor infrastructure) and lack of transportation lead to the isolation of rural teachers from a variety of CPD opportunities accessible to their urban schools colleagues. Once mentors could use a car, they could travel and reach remote rural schools.

The right incentives are an important factor for the success of the mentoring programme. Incentives are important both for mentors and for teachers. The type and level of incentives offered to mentors needs to be appropriate. Mentors' salaries/fees need to be significantly higher than the salary of a regular teacher, who does not need to leave home and travel to distant places. Incentives, such as teachers' certification by means of training credits that count for career advancement were highly appreciated in REP.

Strong organization is important for the success of the mentoring programme. The prior training of mentors was essential for the programme's success. The supply of quality support materials such as teaching materials and forms for certifying teachers for attendance were other important factors. Finding the right time for the training sessions and other mentoring activities is challenging. Officials may need to agree to the use of the periodical pedagogical meetings for mentoring purposes, if time for such meetings is legally allocated.

Case Study 3

County Teacher Support System: a Case from China, 'The Southwest Basic Education Project'

1. Background to Southwest Basic Education Project (SBEP)

Since the Dakar Conference in 2000, China has made great progress and achievement in the Education for All international policy. The total enrollment of primary school students nationwide reached 112 million with a net enrollment rate of school-age children of 98.95% in 2004.

Although official enrolment and transition rates in China are high, these mask significant local disparities. Children from poor families, often from ethnic minorities, face substantial barriers in accessing quality basic education. Southwest Basic Education Project was introduced in 2006 with the aim to support the Government in addressing the challenges facing Chinese Basic Education by focusing on three main problems: low enrolment and retention rates, particularly at junior middle school level; poor quality of education; and weak education management. SBEP was a bi-lateral development project between the Chinese Government and the Government of the United Kingdom. The project covered 27 rural and remote counties which are considered some of the poorest in China. The 27 counties are spread over the four provinces (or autonomous region) of Yunnan, Guizhou, Sichuan and Guangxi.

2. SBEP Output 2: Capacity Building on Teachers

In 2004, the proportion of full-time teachers with adequate academic qualifications in primary and secondary schools in rural areas increased rapidly. The proportion of qualified full-time teachers in rural primary schools rose to 98%. However, this doesn't necessarily guarantee the high quality of education. Many of the teacher training institutions had little direct contact with rural schools and courses were academic. Pedagogical training was largely theoretical. As a result, many teachers were poorly prepared for the conditions they face when they start teaching. In-service training (INSET) is largely through workshops and not reinforced by support for the teacher on return to their school. A teaching support systems framework was in place. However, due to a lack of co-ordination and resources it cannot yet provide the support to enable training to bring about sustainable change to education quality.

Given this situation, the SBEP Output 2 was expected to improve the effects of teaching and learning so as to benefit the most disadvantaged girls and boys through strengthening the capacity of the teacher development systems. The designers of the project focused on two main strands of improving the capability of teachers in implementing the new national curriculum - through training and through establishing a teacher support system which could facilitate the sustained development of teachers' professionalism.

In the case of teacher training, a survey was carried out and seven teacher training modules were developed based on its findings. Topics covered in these modules included; Participatory Teaching[3]; Education Equity; Developing and Using Local Resources for Teaching and Learning; Multi-grade Teaching and Teaching Strategies for Bilingual Contexts.

[3] Participatory Teaching refers to a learner-centred approach in teaching which advocates active involving learners in learning. This training module intends to update teachers with methods and techniques that will help them best cater for the needs of their learners.

Training was delivered to teachers in project counties in a cascade mode. In each project province, a provincial trainer team and a county trainer team were identified and built up. Provincial trainers were staff selected from provincial Normal University(Teachers University), Teachers College, provincial Teacher Training School or Teaching Research Office. County trainers were selected mainly from Teaching Research Office in County Education Bureau, county Teacher Training School, and most importantly local model school teachers were chosen as part of the team.

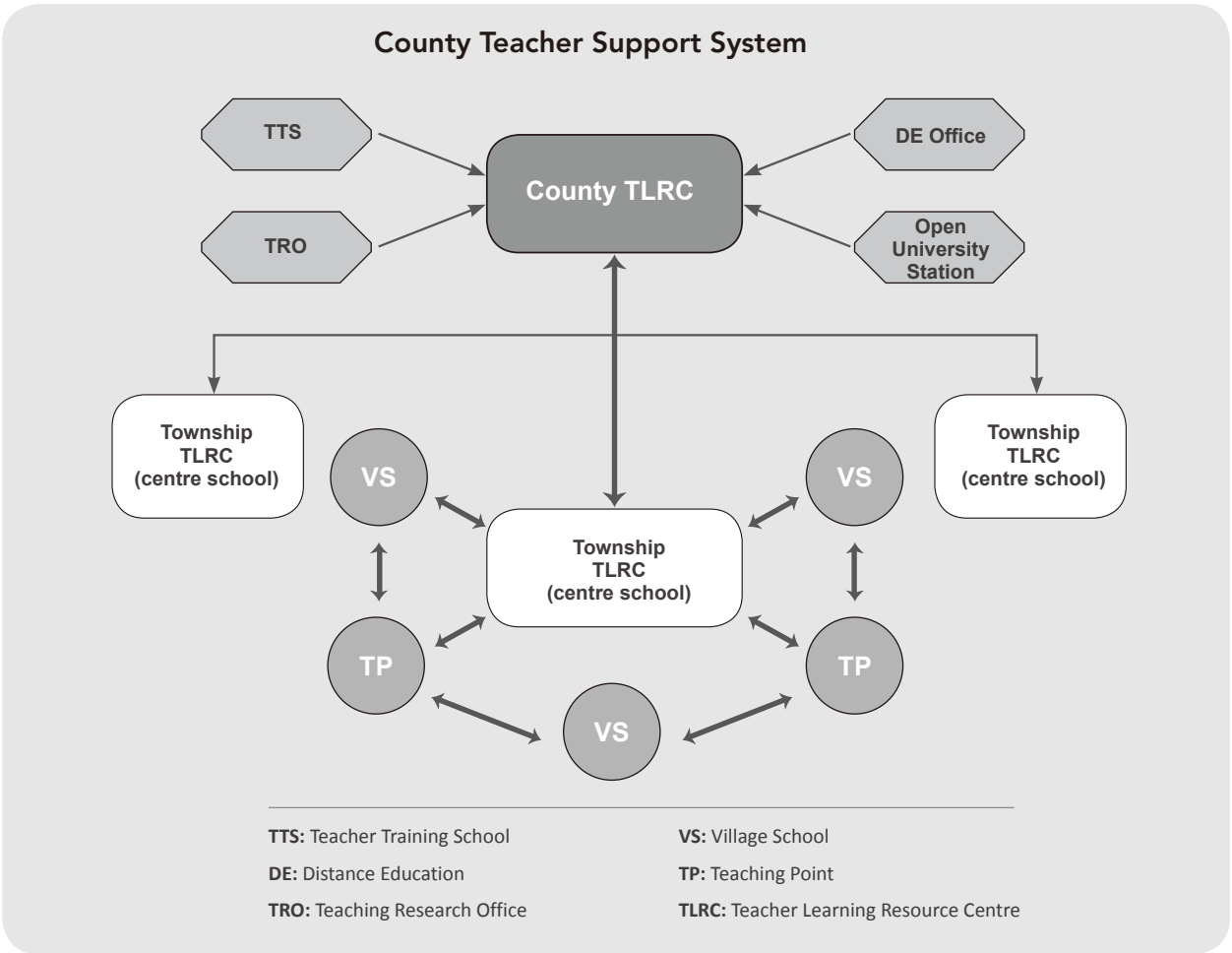
3. Develop and implement a County Teacher Support System

In the case of the Teacher Support System (TSS), it was designed to build up on and strengthen the existing system. The basic procedures to develop and function the rural teacher support system under SBEP Output 2 include:

Step 1: Build up a shared understanding of a rural teacher support system: its aims and objectives, working mechanism and major activities.

The key goals of the TTS were to: 1) support the professional development of teachers in remote and rural areas; 2) improve teachers' teaching skills; 3) expand teachers' professional knowledge; 4) improve students' learning and enjoyment in the classroom for the most disadvantaged girls and boys; 5) contribute to the development of INSET in rural areas; 6) improve ways of working; 7) improve links with the parents and the wider community.

A concept map was developed showing institutions involved in TSS and how they linked with each other. A working framework was also developed and shared which clearly presents activities, time and frequency of activities, responsible person and expected outcomes.



Step 2: Get county CEB's approval through policy-making and support in administrative management of the TSS.

Within SBEP, the commitment and leadership of CEB in the TSS means: 1) to issue formal documents to state the policy and to take actions to merge Teacher Training School with other institutions which also provide teacher training and support into one institution (it could be named as county Teacher Learning Resource Centre); 2) to set up and institutionalize the Township Teacher Learning Resource Centre.

Step 3: Select personnel and capacity building of County Trainers

To ensure the goals of the support system were met, all support providers needed to be properly selected and trained. These support providers were called County Trainers and were trained in how to teach and work with adults. On the SBEP personnel were organised so that the following teams exist:

- Management and Technical Assistance Teams at county level: CEB director, staff from divisions in CEB such as TRO, Distance Education Office, Teacher Training School and key teachers from schools in the County town.
- Personnel in the TLRC at township level: Head-teachers from Centre Schools and Village Schools, directors of teaching affairs in schools, key teachers.

Step 4: Embed good practices through the system

A series of practices were conducted through the system. These included in-service training at TLRC; Classroom Observation and Feedback; mentoring system; classroom action research and joint lesson planning and so on. All these activities focused on the formative development of teachers and provided follow up support to them. A record of these activities was kept in the hands of teachers and their supporters, which informed the further development needs of the teachers.

Step 5: Develop and manage resources for teaching and learning at TLRC

Resources were given to township TLRCs so as to facilitate teacher training and classroom teaching which included training modules, DVDs of Classroom teaching in project schools which present good practice of student-centered instruction. Copies of excellent lesson plans, hand-made teaching aids and books were collected and kept in township TLRC to share with teachers.

Step 6: Monitor and Evaluation of the TSS

A series of guidelines and handbooks were developed and shared with various actors in the system. These materials brought coherence to the CPD activities and provided standardization and quality across the provinces and counties. In addition, seminars on issues about TSS were organized by Project Management Office at national, provincial and county level periodically. These meetings offered opportunities for sharing good practices and for ensuring consistency and raising quality across project regions.

4. Effectiveness and outcomes

By the end of SBEP, 249 township TLRCs were established at the poorest townships in the 27 project counties. More relevant CPD opportunities and better resources had been made accessible to teachers in the very remote schools who were normally neglected before because of the geographic isolation and limited logistic resources.

Capacity of individual and institute which provide support to teachers has been strengthened. They became more capable and confident to conduct needs analysis, design and manage needs-based teacher CPD programmes, assess the impact and make proposals for new initiatives.

The training delivered by the project had been very well received by the teachers and had facilitated effective implementation of the new curriculum. The follow up support provided to teachers through TSS ensured changes in classroom practice. A more student-centered teaching approach had been introduced to and developed in the classrooms in the disadvantaged schools.

5. Lessons learned

Key factors which contributed to the success of SBEP County TSS could be summarized as follows:

Choose to support government programmes and policies in the expansion of quality basic education in poor and disadvantaged counties; Commitment and leadership of local education authority and schools ensured the implementation and sustainability of the TSS; CPD activities and support provided to teachers were needs-based and showed a deep understanding of the teachers' working context which encouraged teachers to learn and explore knowledge, skills and techniques to tackle barriers hampering their children's learning.

However, the function of the teacher support system relies heavily on county trainers and key teachers of township centre school. The challenges for the sustainability of SBEP county TSS is the further capacity building of the supporters, the reliable funding for CPD activities and adequate conditions for supporters to fulfil their duty.

Case Study 4

School Clustering: a Case Study from Cambodia

Background to the Initiative

The concept of cluster schooling in Cambodia pre-dates 1998 and some believe evolved from Buddhist teachings. The roots of the Cluster School system can be found in the MoEYS plan, 'Perspectives for Quality Improvement in Teacher Education,' (1990), which noted that such a system had, 'a potential strategy for development.'

Thus School Clustering has been supported by the MoEYS since 1990 in Cambodia. As Geeves (1999) writes in his review of cluster school development and recommendations for strengthening them in Cambodia, 'Clustering was originally undertaken as a strategy to encourage schools to identify local solutions for local problems and to enable strong schools to assist weaker schools in their vicinity through resource sharing. It was also a way through which the Ministry could provide resources to local primary schools from a severely stressed national budget,' (Geeves 1999: 5).

Conceptually the system is meant to be a 'bottom up' and 'grass roots' approach to school support and development. Local solutions to local problems are seen as the key characteristics for successful and effective support to teacher professional development, specifically in rural areas. However integrating concept and practice can often be difficult but Cambodia has been able to overcome some of these difficulties and lessons can be learnt from its experience.

School Clustering in Cambodia

Initially the organisation and management of the cluster system in Cambodia was heavily 'top-down' and centralised with a hierarchy of committees. These were: the National Cluster School Committee, Provincial Cluster School Committee, and District Cluster School Committee and finally and most innovatively the Local Cluster School Committee (LCSC).

The members of the LCSC are all the Directors of Primary Schools in the Cluster, Technical Group Leaders (TGLs), community representatives, the local Lower Secondary School Director (if there is one in the Cluster) and representatives from the Commune Council. When School Clusters receive support from IO/NGOs, the LCSC is an important body for deciding how to use the funds.

The Cluster Director is one of the School Directors and is responsible for chairing meetings of the Local Cluster School Committee, helping School Directors in their management tasks and helping Technical Group Leaders (TGLs) organise Thursday technical sessions. The TGLs are chosen from the teachers at each grade level from schools in the Cluster. The TGLs are responsible for carrying out the Thursday technical sessions and assisting teachers at their grade level improve their teaching.

By the new millennium the School Cluster organisation was realigned according to Bredenberg ,' to give greater focus to internal functions that (did) not entail material resource sharing. Capacity building and accountability (or monitoring) functions should be the focus of this re-alignment,' (Bredenberg, 2002: 23). Bredenberg recognised that ,'Where LCSCs and teacher supervision networks have been well organized, they offer a tremendous means to expedite interventions of quality that seek to promote innovation, ' (Ibid). Therefore Bredenberg

begins to look at School Cluster organisation at a deeper level. He suggests that,' Thinking of the clustering process in terms of function can provide a practical way of grasping the activities that must be set in motion in clusters...models focusing on function can be described as 'deep' structure frameworks because they can be quite explicit in guiding the process of implementation,' (Bredenberg, 2000: 17).

Effectiveness and Outcomes

School Clusters and Sustainability

The functions of School Clustering focus more on accountability, including monitoring and evaluation, so it is more likely that issues of sustainability will be addressed and integrated into future initiatives in School Clustering systems. Looking at School Clusters and equity it can be seen how sustainability issues are also being addressed.

School Clusters and Equity

Equity has always been a key reason for clustering schools in Cambodia, that is, to lessen disparity between schools through the sharing of all resources. This has been achieved through:

- Focusing on institutional and individual capacity building rather than construction;
- Setting up working groups;
- Devolved planning and management through grants;
- The development of manuals to make the sharing of resources more explicit;
- Income generation schemes to provide funds to enable directors and teachers to travel to core schools to share resources.

School Clusters and Cost Effectiveness

As already has been mentioned one of the reasons for School Clustering is economic, specifically in contexts where financial resources are scarce. School Clustering enables sharing of all resources which is particularly pertinent to poor areas (usually rural and remote) where resources are generally lacking.

What does appear to be reiterated in evaluations of projects is the cost effectiveness of effective professional development, as the World Bank found in the end of Implementation Report, there is evidence that, 'small amounts of money devoted to teacher training can have large impacts on learning,' (World Bank 2005). So, although the evidence for the cost effectiveness of school clustering is inconclusive and more information is needed in this area, it would appear that given the experience of EQIP that when school clusters use grant money on teacher development there is an impact on pupils' learning and the school development as a whole.

School Clusters and School Improvement Planning

In the Cambodian School Cluster systems, there has been an attempt to delegate some responsibility for the planning, management and financing of education to the local level through the EQIP grants and LCSCs.

In addition the School Improvement Plans (SIPS) play an important role in teachers' professional development in the School Clusters as teachers are involved at each stage of the main common features of developing SIPS, which according to Geeves (2005) are:

- stressing the importance of consultation between the School Director, teachers and community members in developing SIPs (in line with the government's policy of decentralization) and requiring the signatures of community representatives, along with educational officials, on completed plans

- training stakeholders to conduct a process of planning which identified local needs, set related objectives, agree on activities to achieve these objectives and to set indicators and benchmarks which would enable measurement (see next point)

- stressing the importance of relating activities in the SIP to addressing the major education issues of enrolment, drop out, repetition, promotion and participation by girls which are the targets of the Ministry's Education Strategic Plan (ESP), Education Sector Support Programme (ESSP) and the government's commitment to Education For All (EFA)

- recognizing that the best way to strengthen the relationship between school and community to enable decision making at local level and that this would only be meaningful if real and significant resources were available, real decisions about their use were made locally and stakeholder involvement was genuine. (adapted from Geeves 2005:3)

School Clusters and Decentralization

According to Bredenberg in his analysis of the processes and outcomes of School-Cluster systems, there appear to be four areas where clusters have succeeded in promoting decentralization:

Heightened local management of resources

Decentralization in the local use of resources has been achieved through the decision of the MoEYS in collaboration with donors to route funds more directly to schools via cluster school networks. … At the cluster level, the utilization of funds has been greatly facilitated by the introduction of objective-based planning, mostly through Logical Framework Approaches. This reform of the planning process allows each LCSC to analyze its own problems and to determine its own objectives, activities, and budgetary requirements based on this analysis. Planning together as a group of schools helps to ensure that more competent school directors can work with the less competent ones to produce a rationalized plan that benefits everyone.(Bredenberg, 2002: 13-14)

Local decision-making and empowerment

With their strong focus on planning, cluster school projects have provided a structured context for schools to collectively make decisions based on rationalized assessments of local need. Because schools are often limited in their exposure to activities to solve problems, cluster school projects have begun to move in the direction of using activity menus to facilitate local decisions by providing choice among a wide variety of possible options. These activity menus outline all the technical support which is available to them. Activity Menus may differ among provincial sites within each province depending on the technical expertise, (Ibid: 13).

Localized capacity-building

Another important potential in the cluster context has been its ability to promote locally based modes of teacher supervision and teacher training. This has been approached primarily through intensive training of technical grade leaders (TGLs) who are cluster based. TGLs are master teachers who plan teacher training activities on Thursdays and do follow-up supervisory visits during the month. (Ibid: 13).

Streamlined absorption of development aid

Dealing with schools collectively rather than individually has enabled development projects to greatly increase both the amount of aid that can be disbursed and the number of beneficiaries of that aid. Working through an established network of school directors, cluster based master teachers, and community members enables project staff to achieve tremendous savings in their use of time, particularly with respect to training activities and development, (Ibid: 14).

Lessons Learned

Teacher Educators/ Trainers

The role of teacher educators or trainers are too often forgotten and yet are pivotal in the facilitation and management of the capacity building at local levels. Therefore it is necessary to ensure that time and training is given to them as well as ongoing support so that they can provide quality inputs at school level.

As Geeves and Bredenberg mention in their Planning document for an ADB project, 'Training is seen as a core component of the project. It is clear that sustainable improvement in remote schools depends upon well informed education officials working at Provincial and District levels to provide support and responsive management. They in turn must have access to and support from specialist personnel at national level. The quality of training programmes and the trainers will be critical in achieving such an enabling environment,' (Geeves and Bredenberg 2004: 11).

More recently a VSO reiterated similar sentiments,' The lack of quality teacher trainers presents another major impediment to progress. Cambodia currently suffers a serious shortage of experienced and thoroughly qualified teacher trainers, in large part a result of the disassembling of the teaching service in the 1970s. Because pulling qualified trainers from current experienced teaching ranks would only exacerbate shortages, development partners may have an opportunity to focus on this area,' (VSO, 2008 cited in UNESCO 2011: 40).

Herein lies the weakness, too often training programmes and trainers do not deliver the necessary quality. This can be for a number of reasons but in the Cambodian case it is mainly to do with selection. The selection of trainers has come from the more senior ranks who have either not been in the classroom for a very long time or never been in one. They do not have the skills to train adults and worst of all they do not have the interest in improving the quality of education. Relevant and appropriate selection and selection criteria of trainers is therefore crucial. In addition to the selection of suitable trainers is the content and design of the training materials which should be relevant, appropriate, participatory and with a focus on child-centred or child friendly teaching and learning.

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Case Study 5

Pedagogical Workshops: a Case Study from Mozambique

Background to the Initiative

The NGO, Ajuda de Desenvolvimento de Povo para Povo (ADPP) (Development Aid from People to People) Mozambique, has been working in partnership with the Ministry of Education for many years and training primary teachers since 1993. ADPP has made a strategic choice to focus on teacher training in order to increase access to primary education and improve education quality, with the objectives of:

1. educating qualified teachers, creating continuity in supply;
2. raising the quantity and quality of teachers in primary schools to better meet the needs of rural areas; and
3. promoting education and development in a wide range of aspects in the community.

ADPP works in strong collaboration with local communities in order to develop health and education projects that address community concerns. The collaborations require a paradigm shift from traditional practices to an approach that involves: acknowledging community contributions, recruiting and training local people to participate in training, improving communication, sharing power, and valuing local practices. ADPP's management systems support local participants by emphasizing the importance of peer leadership, supervisory support, and community liaison in the implementation of community-based services, which use culturally appropriate strategies.

Through its programme of decentralization, the Government of Mozambique has placed a great deal of emphasis on the development of local centres on a provincial level which can lead MINED's new strategic interventions. The decentralization plan, which is due to finish in 2014, emphasizes the importance of developing provincial institutions and networks which support in-service training and assist to adapt the national in-service training programme (in development at present) to the local context. In all provinces, ADPP is involved in this process and the interventions in this project support the national in-service training curriculum.

Establishing Pedagogical Workshops to support rural teachers

Access to education and improvement of education quality has been orienting ADPP interventions in the education sector in Mozambique. Parallel to teacher training in the 10 Teacher Training Centres, ADPP has introduced and expanded the Pedagogical Workshops (PWs), as a tool to develop continuous in-service teacher training activities. The Pedagogical Workshops are aimed at the improvement of the learning environment in primary schools and increasing educational opportunities while strengthening community members' effective participation and support of education through capacity building activities.

The Pedagogical Workshops seek to address specific aspects of education quality based on the following assumptions:

(1) Constraints in the state budget reduce the number of teachers trained and therefore contribute to high pupil-teacher ratios, therefore the training of more teachers with external support is key.

(2) In-service teacher training must ensure that teachers have the capacity to effectively meet the requirements of the national and local curriculum, including lesson preparation, and the capacity to deal with social and cognitive challenges in learning.

(3) The quality of primary education can be improved through the introduction of additional reading and writing tuition for the first grades, as this ability is critical for the success of the whole process of education.

(4) The existing disparities in the completion rates of girls and boys must be addressed as a matter of priority.

The first PWs were established in Manica province where there are 676 primary schools and many are located in isolated areas. Considering that many teachers didn´t have a proper education and their academic results were among the lowest in the country, ADPP has developed a programme in coordination with the provincial department of education (DPE Manica), in which a considerable number of primary school teachers in the province had the opportunity to be involved in a 3 year in-service training. The programme is aiming to increase the knowledge and skills of 559 primary school teachers and develop 26 model schools with improved educational conditions connected to 13 pedagogical workshops in 10 different districts in the province. The PWs are now part of the pedagogical structures in the districts in a close cooperation with the SDEJTs.

An in-service teacher training programme has been implemented through a network of Pedagogical Workshops located in each district which serve as resource and training centers for teachers to ensure that they use the most updated teaching methods, lesson planning and school management techniques. This has contributed to reduce dropout and repetition rates of pupils. To support these interventions, the PW project ensures that the community participates in school councils and activities designed to reduce health and social risks that prevent children from participating effectively in school.

The objectives for setting up and scaling up Pedagogical Workshops in rural districts of Mozambique are three-fold: (a) To support teachers in their pedagogical work by providing means and tools that help them to improve the quality of teaching; and (b) To strengthen leadership skills of the ADPP teacher graduates to be able to implement development projects that bring the community closer to the education process, and (c) To empower children and youth and mainly girls and women so that they engage in the social and economic development of their communities by strengthening their capabilities.

Pedagogical Workshop is a way that brings modern information, communication and education technologies to the doorsteps of rural communities. It maximizes the investment in the training of the “Teachers of the Future” and creates centers for outreach work. The main outcomes of PWs in rural areas are translated in better learning opportunities for children and adults and their empowerment with skills to participate more effectively in the social and economic development of their districts.

PWs are resource centers to be used by teachers to plan their lessons, share experiences, and produce didactic materials; teachers have the opportunity to learn and use computers and the internet where it is possible, and interact with the community. It is the meeting point for the educators .

An important component of the PWs are the resources which are allocated in the form of equipment and materials, which enable the creation of a learning environment where different stakeholders can interact: computers, printers, scanners, television and DVD, photocopy machines, books, magazines, laminating and binding machines, are some of the resources that are allocated to each PW.

Effectiveness and Outcomes

The issue of trained and untrained teachers delivering low quality primary teaching is being tackled by the PWs.

This model of in-service teacher training aims at increasing the delivery of good quality primary education. It helps to produce a group of well-trained teachers who can help to provide models of good classroom practice, motivating their students and contributing for children's retention and progression. This model provides opportunities for continuing professional development of teachers in rural areas, where communication and access to resources are limited and constrained.

In order to ensure the sustainability of the PWs, a management body is normally elected to work together with the PW manager and coordinator. This committee includes a school's headmaster, a representative of the school administration, a representative of the district educational services, two community members, and one person from IRDP (local committee of development). This group meets regularly to monitor the functioning of the PW, solving problems, approving norms or regulations and programmes, suggesting more activities and supervising the financial management of the PW.

PWs have promoted and supported the use of ICT tools: training of teachers to manage computers and use modern digital tools. This means access to studies, comments from other peer teachers, working groups for planning, debating and sharing of experiences. The digital libraries set up in the PWs have made the training more effective, and the use of DMM (Definition of Modern Methods), a system of teaching and learning implemented by ADPP, has been helping teachers to develop a more child centred methodology.

Rural teachers who work in difficult conditions have raised their motivation and become multi-faceted professionals who see education as part of community development, and mainly see themselves as agents of change. The retention and completion rates in schools around PWs have improved.

There is a general public recognition, especially at district and local level, of the importance of the PW, as a catalytic resource for community mobilization, and teachers' and students' engagement in community development. The improved capacity and personal progress of most staff and people involved in implementing and managing PWs is quite visible and measurable.

There is also cooperation among different stakeholders at the community level who understand and share the same vision regarding their problems and how PWs help to address them.

Lessons Learned

Community development through education and health promotion using the PWs has meant developing organizational and leadership capacity, building on strengths, respecting community values and learning from experiences. The main lessons after more than a decade of implementing PWs are around creating and adjusting plans to address concerns, make decisions about resources, share responsibilities and develop communities in action. There are important lessons that have been learnt over time:

- Each community is different. It is different in its needs, financial capacities, and the physical organization of the village, the people who are involved and the gender relations. In this respect, it is important to fit the activities and norms specifically to each community, and be sensitive to these differences. Sometimes, small changes need to be made in order to fit the same activity to two different communities.

- It is important to involve the community in the management of the PWs so that it develops the ownership of the development process. This can help create a greater understanding and collective decision that show that all stakeholders share the same interest.

- It is important to think from the beginning about financial sustainability of the PWs, and the early start of income generating activities will ensure benefits for all.

"Ownership" of the PW objectives is vital, and an enabling environment should exist for local governmental institutions and community organizations to establish a collaborative partnership in undertaking the responsibility for developing a local "vision" and strategy, and for designing/planning, allocating resources, implementing and monitoring/evaluating of development activities that better cater to local needs. It is important that the various local players, teachers, students, school headmasters, PW managers, local authorities, local leaders and formal and informal local entrepreneurs become the driving force towards development, and develop a "sense of shared ownership", and jointly manage their development initiatives.

Community development based on a learning community approach fosters the acquisition of information, knowledge, skills, attitudes and values that together build a community's capacity to successfully respond to, and direct economic and social change. Allied to the improved quality of education that PWs contribute to, ADPP's experience should be regarded as an important tool that should be replicated and adopted by education authorities in many other sub-Saharan countries.

As an innovative approach built in partnership with communities, schools, local institutions, and community organizations, PWs promote outreach and extension opportunities for people in remote and rural communities. PWs develop skills and qualifications to enhance employment and self employment, provide community services and skills development initiatives that promote collaborative community efforts to reduce disadvantage and exclusion of people with few assets and opportunities.

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