

**GOVERNMENT OF PR CHINA**  
**UNITED NATIONS DEVELOPMENT PROGRAMME**

**USING DISTANCE EDUCATION AND ICT  
TO IMPROVE TEACHER QUALITY  
IN POOR AREAS OF WESTERN CHINA**

This project aims at increasing educational equity at the primary level in three western provinces of China. The project will deliver high-quality, distance teacher training for 20,000 in-service teachers in poor rural communities within the nine selected counties of Gansu, Sichuan and Yunnan provinces. The project design and implementation will meet the particular learning needs of the target group of teachers including subgroups such as female teachers, *dai ke* teachers and ethnic/language minority teachers.

The project will achieve its purpose through thoughtful application of the best international and national practices in distance teacher education. The project will improve access to quality teacher education, utilizing flexible distance-learning mechanisms, including information and communication technology (ICT) and the creation of a teacher professional development network. The project will produce policy recommendations on cost-efficiency and cost-recovery strategies in the application of ICT for teacher education, particularly in the context of poor rural areas.

Date: 14 August 2002

Deleted: 3

## TABLE OF CONTENTS

	<b>PAGE</b>
LIST OF ABBREVIATIONS	4
EXECUTIVE SUMMARY	5
<b>1.0 SITUATION ANALYSIS</b>	<b>11</b>
1.1 DEVELOPMENT CONTEXT	11
1.2 SECTOR ANALYSIS	12
- National and provincial policies and regulations	
- The use of distance education for teacher education in China.	
- Lessons from international practice	
- Lessons from Chinese practice	
1.3 GENDER AND SOCIAL ISSUES	15
1.4 UNDAF/CCA	16
<b>2.0 PROJECT STRATEGY</b>	<b>17</b>
2.1 KEY ISSUES AND CHALLENGES	17
- Access and equity for disadvantaged groups	
- Quality and accreditation	
- Partnerships collaboration and linkages	
2.2 LINKS WITH OTHER INITIATIVES	18
2.3 KEY ELEMENTS OF THE STRATEGY	19
- Project beneficiaries	
- Criteria for selecting counties	
- Scale of the project	
- Strengthening county level teacher training	
- The role of township schools as resource centres	
- Resource sharing and regional strengthening	
- The use of technology and ICT	
<b>3.0 RESULTS FRAMEWORK</b>	<b>29</b>
3.1 GOAL, PURPOSE AND OUTCOMES	29
3.2 PROJECT OUTPUTS, BASELINES AND INDICATORS	29
- Summary of outputs	
- Outputs, baselines, indicators and activities	
- Output 1	
- Output 2	
- Output 3	
- Output 4	
- Output 5	

-	Output 6	
-	Output 7	
	3.3 PROJECT RESULTS & RESOURCES FRAMEWORK	37
	3.4 TECHNICAL INPUTS	47
	3.5 PROJECT PHASING	47
4.0	<b>PROJECT MANAGEMENT AND COORDINATION</b>	48
	4.1 EXECUTION IMPLEMENTATION & COORDINATION	48
	- National Level execution and implementation	
	- Provincial Structure	
	4.2 REVIEW, MONITORING AND EVALUATION	52
5.0	<b>LEGAL CONTEXT</b>	53
6.0	<b>PROJECT FINANCING AND BUDGET</b>	54

## **LIST OF ATTACHMENTS**

ANNEX 1	Logical Framework
ANNEX 2	Terms of Reference Project Consultants
	- TORs Teacher Needs Assessment
	- TOR for Stakeholder Analysis
	- Preliminary TORs International and National Technical Advisors
	- Preliminary TORs Consultants Input Inception Phase
ANNEX 3	Policy, regulations and government projects for ICT in education and distance education: summary grid.
ANNEX 4	Policy, regulations and government projects for teacher education: summary grid.
ANNEX 5	Uses of Web-based technologies to support teacher training courses: international experience so far.
ANNEX 6	Provincial teaching structure and organisation.
ANNEX 7	Equipment lists and costs.
ANNEX 8	Routes to teacher qualification.
ANNEX 9	Overview of donor funded projects on distance education in China
ANNEX 10	UNDP regulations for procurement and recruitment under national execution
ANNEX 11	The materials production process: an example
ANNEX 12	Computers are more than equipment: Total Cost of Ownership (TCO)
ANNEX 13	Role of the provincial implementation group
ANNEX 14	Third-party Cost-sharing Arrangement between DFID and UNDP
ANNEX 15	Mission report on teacher needs assessment
ANNEX 16	Report on stakeholder analysis

## LIST OF ABBREVIATIONS/GLOSSARY

<b>CCA</b>	Common Country Assessment
<b>CCTVTC</b>	China Central Television Teachers College
<b>CICETE</b>	China International Centre for Economic and Technical Exchange
<b>CIDA</b>	Canadian International Development Agency
<b>CSO</b>	Civil Society Organization
<b>DAI KE</b>	Substitute teachers, usually unqualified
<b>DFID</b>	Department for International Development (UK)
<b>EU</b>	European Union
<b>ICT</b>	Information and Communication Technology
<b>MOE</b>	Ministry of Education
<b>MOFTEC</b>	Ministry of Foreign Trade and Economic Cooperation
<b>MOII</b>	Ministry of Information Industry
<b>MOST</b>	Ministry of Science and Technology
<b>NCET</b>	National Center for Education Technology
<b>NGO</b>	Non Governmental Organisation
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>PCET</b>	Provincial Center for Education Technology
<b>PPP</b>	Private-Public Partnership
<b>UNDAF</b>	United Nations Development Assistance Framework
<b>UNDP</b>	United Nations Development Programme
<b>UNESCO</b>	United Nations Education, Science and Cultural Organisation
<b>UNICEF</b>	United Nations International Children's Emergency Fund
<b>WB</b>	World Bank

Deleted: .

## EXECUTIVE SUMMARY

### *Introduction*

Education, a key determinant of economic and social development, plays a central role in poverty alleviation. The importance of teachers in determining the quality of education is reflected in government policies and regulations in China. Over the last decade, great progress has been made in improving teacher supply and quality in the western provinces of China, however there is still a shortage of qualified teachers, especially in rural areas.

### **Project Goal**

The **goal** of this five-year project is *to improve the quality of primary school education in three western provinces of China.*

### **Project Purpose**

The **purpose** of the project is *to deliver high-quality, distance teacher training for primary teachers (especially daike, female and ethnic minority teachers) in the poorest communities of nine counties of Gansu, Sichuan and Yunnan provinces.*

The project will extend access to learning opportunities, resources and support for rural primary teachers. These provisions will address not only professional development in terms of knowledge and skill, but also build teacher motivation and engagement. The project's innovative use of ICT in teacher training will have the added benefit of building institutional capacity in the use of ICT and distance education for teacher training.

### *Situation Analysis*

Teachers play a critical role in the quality of education. For a teacher to be successful in the classroom, s/he needs to have strong subject knowledge, an awareness of a range of appropriate teaching methods, and the motivation to teach. Teacher training is a particularly effective method for improving teacher knowledge, skills and motivation.

Ongoing professional development for teachers in western China faces two major challenges: funding constraints, and the need for more appropriate training to meet the needs of the most remote and underqualified teachers. There are increasing demands for professional development from central government directives. Concurrently, there are new developments in the provision of ICT equipment and their applications for educational purposes. This project will capitalise on new opportunities to focus on teachers in the poorer rural areas and to strengthen capacity in distance education and ICT as a vehicle for professional development for such teachers. The project is therefore extending current government initiatives and strategies to reach teachers and communities not yet benefiting from these initiatives. By doing so, the project will pilot innovative approaches in professional development for teachers in poor and remote communities.

Adequate cost-recovery models are lacking in distance teacher education, making sustainability difficult. For the current project, a strategy is to pilot innovative and sustainable cost-recovery models of distance teacher education.

The project will work in the poorest communities of Gansu, Sichuan and Yunnan provinces. These sites are at different stages in their implementation of central policies related to ICT/distance education, and teacher education. The project will take the differences between the provinces into account, and will work in the poorest communities of three poor counties in each province.

Distance education is an established part of teacher education in China, but primarily focuses on certification, rather than improving classroom practice. Challenges in distance education for teacher training from the perspective of the rural teacher include:

- access to learning centers
- appropriacy of current materials for rural teachers;
- minimal learner support
- little learner differentiation
- limited links to classroom practice

The project will address these issues with a focus on improving instructional design to meet the needs of the rural primary teacher. Because women teachers are frequently the least well educated, the project's instructional design will incorporate a gender-aware perspective. In addition, the needs of other disadvantaged groups among the teaching corps, such as *dai ke* teachers, language minority and ethnic minority teachers, will be addressed in the context of appropriate instructional design and delivery. A key activity for the inception phase of the project will be a participatory planning process and professional development needs analysis for these target teachers. An initial needs analysis has been done as part of the preparation phase.

## ***Project strategy***

### **Strategy Overview**

Key elements of the strategy include:

- collection of baseline information of educational achievement and current provision,
- a needs analysis for target teachers; development of appropriate courses and training;
- establishing teachers resource centres and learner support mechanisms;
- creating quality standards for materials and processes;
- working collaboratively in teams; with local and provincial government
- ongoing monitoring, evaluation and research;
- sharing and dissemination of research.

### **Applying Distance Learning for Large-Scale Teacher Training**

International experience has shown that distance education can be successful in providing teacher education on a large scale, while keeping teachers in classrooms; widening access to training opportunities; maximising the use of scarce expertise; and providing a cost-effective means of training teachers. Access to high-quality materials which make explicit links to classroom practice, and strong learner support systems are key elements in the success of distance teacher-training programmes. This project offers new opportunities for shifting the focus to teachers as learners, and for improving the quality of instructional design.

### **Creating a Cost-Efficient Model for Distance Teacher Education**

The project will build on the national policies and strategies for the reform of the teacher education curriculum, and for the development of ICT and distance education provision. Project activities will both contribute to, and extend the application of, these policies and strategies to poor communities in remote areas of western China. By so doing, the project will develop new models of effective and cost-effective professional development for Western provinces which will demonstrate cost-recovery mechanisms of

distance learning services for teacher education, will be piloted and experiences disseminated for replication beyond the project counties and provinces. The project will also work closely with other bilateral and multilateral initiatives in both teacher and distance education to ensure complementarity and synergy, rather than duplication.

### **Focusing on the least-qualified teachers serving children in the poorest communities**

The target 20,000 teachers are all primary-school teachers in the selected counties, with particular emphasis on the least qualified (of which the subgroups of women, dai ke teachers and ethnic/language minorities are over-represented). The two broad strands will be improvement in the recognised formal qualification levels of unqualified teachers, and continuing professional development for teachers focused on improving classroom practice.

The project will work in the poorest communities of the following three counties in each of the three provinces. **Gansu:** Jingning, Huating and Tianzhu counties. **Sichuan:** Xuyong, Pingwu counties and Mabian Yi autonomous county. **Yunnan:** Fuyuan, Shuanbai counties, Lancang Lahu minority autonomous county. Each of these meets national or provincial poverty county criteria. Within each county the project's focus will be on the poorest communities. At least 20,000 teachers will benefit directly from the project.

### **Customizing the design and delivery of teacher training according to baseline data and needs analysis**

The key challenges for the project are the issues of access and equity for disadvantaged groups, particularly 'dai ke,' women teachers and teachers from ethnic/language minorities. Successful distance education programmes depend on the quality of the learning materials, the provision of accessible local support, efficient delivery and administrative systems, effective co-ordination of the people, institutions and departments involved and communication among them.

Resource centres will be established in township central primary schools and there will be active sharing of materials and experience both within and between provinces. A needs assessment will be undertaken to assess access needs (e.g. transportation assistance) so that teachers from remote areas may use the town-based resource centre.

### **Innovative and thoughtful application of ICT for teacher training**

ICT will be used in the project for three main purposes: to deliver training materials; to provide a means of interaction between teachers, teacher trainers and others; and to provide greater access to information and educational materials. Digital technology will not be the only technology used. The best distance learning programmes integrate a range of old and new media. Choices of media and technologies will be made in relation to the infrastructure, learner conditions at different levels and teaching purpose.

### ***Indicators of project achievement***

Indicators of achievement of the purpose will include:

- Improvement in the quality of learning and teaching in basic education in the poorest communities of the nine counties in which the project will work, measured by:
  - Increased numbers of qualified teachers, particularly women and ethnic minority teachers.
  - Increased number of classroom methodologies used by teachers.
  - Improved classroom learning/teaching behaviors by pupils and teachers.
  - Increased school retention rates for pupils.
  - Improved pupil achievement.
- Strengthened local provincial and national capacity and programmes for developing and managing the use of distance education and ICT for teacher education.
- Development of sustainable, replicable models of distance education for remote poor areas which are cost-effective and self-financing so as to maintain services and facilities.

### ***Project outputs***

Outputs which contribute to the project purpose and goal are:

Output 1. The quality of primary school teachers is improved in terms of their professional knowledge and skills through piloting and implementing new models for teachers professional development

Output 2: The number of primary teachers with the requisite qualifications is increased through their achieving required certificates/diplomas. In particular, dai ke teachers as well as female, and minority language teachers (if any) will be targeted.

Output 3: A cadre of primary backbone teachers and school heads able to lead and support curriculum reform and professional development in schools is developed.

Output 4: The capacity of teacher trainers is strengthened, particularly in the design and use of ICT and distance education for teacher education at the levels of normal university, county and school.

Output 5: Access to learning opportunities and materials is increased for all primary teachers and networks of professional development and resource centres at township central primary schools are established. Primary teachers working in remote areas are provided with assistance in accessing the resource centres

Output 6: Cost recovery mechanisms of distance learning services for primary teacher education piloted involving innovative partnerships with the private-~~public partnership (PPP)~~, and ~~Non-Governmental Organisations (NGOs)/Civil Society Organisations (CSOs)~~.

Deleted: sector

Deleted:

Output 7: Experience and materials from the project are shared beyond the project and evidence-based policy recommendations on the use of ICT and distance mechanisms for primary teacher education, with special reference to poor rural areas, are produced and disseminated nationally.

## ***Project management***

The project will be executed by the China International Center for Economic and Technical Exchanges (CICETE) under the Ministry of Foreign Trade and Economic Cooperation (MOFTEC). As the traditional government counterpart of UNDP in China, CICETE is familiar with UNDP procedures for national execution and will be responsible for an efficient, accountable and transparent use of DFID/ UNDP resources under the project.

### **UNDP**

UNDP will be responsible for monitoring project implementation and will be accountable for the overall achievement project results/ outputs and the use of project resources as well as ensuring compliance with UNDP procedures on the use of project funds. UNDP will ensure the introduction of the most suitable international practices on the subject of this project.

### **DFID**

DFID will be responsible for making DFID resources available under the agreed budget items and will be consulted on all decisions involving significant changes, as and when required, in the outcomes, outputs and activities of the project. DFID will be a member of the project advisory committee to be established at national level with representation of UNDP, CICETE, MOFTEC, MOII, MOST and MoE to monitor progress and advise on direction. An annual project review meeting will ensure that the project remains focused on its goal and purpose. Details of the cooperation between DFID and UNDP under the project are to be spelled out in a Third-party Cost-sharing Arrangement between DFID and UNDP to be annexed to the project document as Annex 14.

All main parties (UNDP, DFID, CICETE and MoE) will ensure that project experience is disseminated widely and comprehensively among Chinese and international stakeholders.

### **ADVISORY COMMITTEE**

At national level, a project **Advisory Committee** will be established with representation of DFID, UNDP, CICETE, MOFTEC, MOII, MOST and MoE will meet twice a year to monitor progress according to reports received via MoE and to advise on direction [particularly for the development of cost-recovery mechanisms of distance learning services for primary school teachers in the nine selected poor project counties](#). The advisory committee will have the authority to amend programme activities as appropriate in the light of project experience. The representatives of each of the partners in this project will also use all their mechanisms to ensure that project results and lessons are disseminated as widely as possible within China and beyond.

### **MINISTRY OF EDUCATION**

National level co-ordination will be done through a core group convened by Department of International Co-operation and Exchanges in the Ministry of Education who will also act as the implementing agency of the project. The leader of the core group is the National Project Director (NPD) and he or she will be responsible for overall project coordination and implementation at various levels.

## **TECHNICAL ADVISORS**

The project will recruit an international technical advisor (ITA) and two national technical advisors (NTAs) who will be reporting to CICETE and will be responsible for providing overall strategic advice and support to the Programme to ensure that it is implemented efficiently and completely. In addition, the project will also recruit national and international specialists, to advise on the development of training courses, delivery mechanisms and systems for different target groups of teachers, as well as material development and development of teaching resources and guides, and the development of built-in, continuous review and monitoring mechanisms.

## **PROVINCIAL AND LOCAL GOVERNMENT**

Implementation of activities will be focused at the provincial, and lower levels. The provincial education departments will act as co-ordinator, with an advisory committee, and this model will be replicated at the county levels. Each stakeholder will have a specific role.

In each province, there will be a co-ordinating group, likely to be centred in the provincial normal university with responsibility for planning, management, training and materials development.

### ***Project financing***

The total project budget of US\$ 9.4 million will be cost shared by UNDP (US\$ 1.2 million), Department for International Development (DFID) United Kingdom (US\$ 5.2 million) and Government of the People's Republic of China (US\$ 3 million). The government cost-sharing contribution which is to be provided in cash onto the UNDP project account will cover training including national and international study tours as well as equipment. [In addition to cash inputs, the Chinese government, through the provincial governments, will provide US\\$6.5 million in-kind contributions to the project, and to the system that the project establishes.](#) For details, please also refer to the section on Project Financing and Budget.

# 1 SITUATION ANALYSIS

## 1.1 DEVELOPMENT CONTEXT

Education is a key determinant of economic and social development and plays a significant role in poverty alleviation. The quality of education experienced by children and their levels of achievement depend on several factors: access to schooling, adequate health and nourishment, the conditions of learning (school facilities, class size and emotional climate), family and community support, the availability of textbooks and learning materials, the amount of time spent in learning, the relevance and design of the curriculum and the quality of teaching and teachers.

The importance of teachers in determining the quality of education is emphasised in many international reports (for example, Delors, 1996; UNESCO, 1998; UNICEF, 1999; UNESCO, 2000; European Commission, 2000; OECD, 2001). It is also reflected in government policies and regulations in China. Raising the standards of teacher qualifications, and continuing professional development is seen as a right and duty of all teachers.

The education and training of teachers has been identified as one of sixteen indicators of quality in school education (European Commission, 2000) though there is still some uncertainty about what constitutes effective teacher training. To be effective, a teacher needs a combination of knowledge and skills: knowledge of academic subjects, school curricula, pedagogy, and child development; and skills in communication, classroom management, creation and use of learning resources, assessment of learning and monitoring of individual progress and needs. To knowledge and skills, the motivation to teach well needs to be added (World Bank, 1990). Research also reveals the importance of teachers' beliefs in shaping what and how they teach and their attitudes to teaching. To all of this must be added the creation of conditions and teacher roles which enable and promote learning, especially for disadvantaged groups (DFID, 2000).

Though great progress has been made over the last decade in improving teacher supply and quality in the western provinces of China, there is still a shortage of teachers who have certification in many of the poorer counties, especially in rural areas. Around ten percent of teachers in many of the poorer counties have no qualifications, with an even higher proportion in some rural areas. The quality of teachers with certification is often low, in levels of academic subject and general knowledge, and the range of teaching skills and skills to manage children's learning.

Improving the situation in Western China faces two main obstacles. Firstly, funding constraints limit the capacity of provincial and lower level government to expand current provision for in-service teacher training and development. Secondly, existing models often fail to adequately serve the most rural and needy teachers. Current models still rely on intermittent, face-to-face, out of school training. At the same time, national minimum standards for teacher qualifications are being raised (to be achieved by 2010). New national policy directives specify the number of hours of continuing professional development that teachers are required to undertake each year, provided and funded by provinces. This means that there is an increasing range and volume of training needs which cannot be met within existing resources or forms of provision. There is also considerable scope for improvement in the quality and effectiveness of existing training provision.

Coinciding with the changing needs in teacher education, in both scale and quality, are new developments in distance education and the use of ICT (information and communication technologies) which offer new opportunities for meeting these needs. Since 1998, a new government policy places emphasis on the use of distance education and ICT (Annex 3). This has been accompanied by considerable government investment in the infrastructure and equipment needed for its development, including western China. The infrastructure for ICT is rapidly being set in place though disparities still exist between eastern and western China (where 70 percent of China's poor live) and between cities and rural areas. It has not yet reached all townships, teacher training schools or schools. Despite this, the provision so far offers new opportunities for teacher education and professional development and for improving its quality.

This project will capitalise on these new opportunities by extending current government initiatives in teacher development and ICT (which tend to work outward from the national/provincial centres) to reach teachers and poor communities in rural areas which are not yet benefiting from these initiatives. In doing so, the project will pilot innovative approaches to professional development of teachers in such communities, and will strengthen capacity in the use of distance education and ICT as a vehicle for this development.

## **1.2 SECTOR ANALYSIS**

### ***National and provincial policies and regulations***

National and provincial policies on the use of ICT for distance education and on teacher education are summarised in Annexes 3 and 4. There are a number of laws, regulations and strategies which emphasise the use of modern technology for education and teacher education, including the development of a technical infrastructure, and pilot projects at all levels of education. As can be seen in these annexes, the project will align with both these sets of policies and regulations and has the potential to contribute significantly to their implementation in poor counties in the selected provinces (Gansu, Sichuan and Yunnan). It is also expected that the project will be able to assist policy development through trailing innovative approaches to professional development for teachers in poor rural communities.

Each of the three provinces that the project will work in is at different stages of implementation of these policies and each is following a different sequence and emphasis. Each of the provinces has a long way to go to fully implement these policies. In meeting the targets set for teachers' annual participation in continuing education, some provinces have included a component of 'self learning' or 'self study' as the only possible way of meeting them. The support materials and structures for this component vary in extent and quality, but tend to be minimal. The differences between the provinces have two implications for the project. The first is that project priorities and balance of activity will vary among the three provinces and in relation to national policy. The second is that the project has potential for strengthening the provision of professional development for teachers in all the provinces.

The educational ICT infrastructure is developing in similar ways in all three provinces though with some variation. For example, the CERNET communications network covers Sichuan and Yunnan, but in Gansu its coverage is limited to the provincial capital of Lanzhou and four nearby counties. These differences have implications for the design of the education programmes and distance education systems.

## ***The use of distance education for teacher education***

Distance education is an established part of teacher education provision in China, through dedicated distance education institutions as well as departments of conventional teacher colleges. Most of the provision is aimed at enabling teachers to pass examinations in order to gain formal certification as a teacher, either initial certificates or upgrading certificates to diploma or degree. Less attention has been directed towards improving classroom practice.

Distance education has played an important role in China's considerable achievements in teacher education over the last decade. For example, between 1987 and 1999, 717,300 unqualified primary teachers gained certificates (the award for secondary school level teacher training) through the China Central Television Teachers College (CCTVTC) and became qualified for primary teaching, and 552,000 unqualified secondary school teachers (mostly junior-secondary) gained diplomas. Annual data on registration numbers and completion rates is not available. Other institutions are also now providing distance education for teachers through ICT and multi-media classrooms, for both on-campus and off-campus teaching, as part of the national programme for the development of modern distance education.

Delivery of CCTVTC programmes has been through the network of Provincial Radio and Television Universities and collaboration with teacher training institutions for local learner support. The learning materials have been mainly printed materials (textbooks) and television or video programmes. The delivery system is now changing as CCRTVU and CCTVTC move towards greater use of ICT, in line with government policy. The project will give access to these, and other materials, to teachers in remote and poor areas, who currently have very limited access.

[NCET has undertaken and is now implementing many national and international projects of Distance Education \(DE\)/ICT for poverty alleviation collecting, procuring, repackaging and digitizing educational resources for the target groups. NCET is also cooperating with a private company in the development and provision of web/IP-based resources on primary education and teacher training suitable for developed areas as well as poor rural areas. These educational resources can be delivered via satellite IP channels to subscribed schools. Schools in the nine project counties can receive these resources for free, but schools in developed and coastal areas have to pay an annual subscription fee or buy the CD-ROM versions of these resources. The collected fee will recover part of the expenditure of the transmission and repackaging of the resources.](#)

### ***Lessons from international experience***

Distance education has been used in many countries, developing and industrialised, for teacher education and has served a number of different functions:

- initial teacher qualification programmes for unqualified teachers;
- upgrading programmes for qualified teachers;
- academic degree programmes and professional studies (teaching certificate) qualifications;
- continuing professional development programmes for particular groups of teachers (headteachers, specialist teachers of, e.g. mathematics, science, or English as a foreign language);
- short courses introducing new teaching methods (child-centred teaching or multi-grade teaching) or curriculum change;

- provision of resources for teaching and enabling interaction with other teachers.

UNESCO's teacher training programme, Educating for a Sustainable Future<sup>1</sup>, was initiated in partnership with the UNESCO Asia-Pacific Centre of Educational Innovation for Development (APEID). Containing 25 professional development modules for teachers, teacher educators, curriculum developers and student teachers, it may be a particularly useful model for the current project.

Some distance education takes the form of structured programmes of study leading to formal qualifications, others are shorter and provide learning opportunities for teachers to use as they wish for professional development and for improving their practice. Programmes use all kinds of media and technologies (radio, television, print, audio- and videocassettes, computers and computer communications). Some of the most successful programmes combine media, however integrating them is highly skilled work and not always well achieved. The dominant medium used internationally for distance education is still print.

Distance education for teacher education has been successful in:

- providing teacher education on a large scale and while teachers continue to work in schools;
- widening access to training opportunities;
- maximising the use of scarce expertise in a country through making it available to an unlimited number of learners.
- delivering programmes at lower cost per successful student than conventional institutions (with average costs of about a third to a half of traditionally delivered award-bearing programmes). The factors which affect costs are scale (student numbers), media chosen and amount of individual contact and face-to-face teaching.

Common weaknesses in distance education for teacher education have included:

- poor learner support systems, contributing to high drop-out rates. Learner support systems require an adequate number of well managed, highly motivated, and skilled tutors/mentors with adequate financial and other resourcing for them to undertake their tasks.
- professional development courses which are too academic or theoretical and have little relevance to the real contexts in which teachers work;
- unrealistic expectations of the time teachers have available for self-study, resulting in overloaded courses and learning strategies which focus on memorising;
- failures in delivery systems to provide materials when needed;
- inadequate attention to developing 'learning how to learn' capabilities in learners;
- weak management of practical work components in courses (for example, the supervision of school-based teaching experience).

International experience shows that:

---

<sup>1</sup>For further information about Teaching and Learning for a Sustainable Future, visit <http://www.unesco.org/education/eds/english/activities/media.shtml>

- convenient and affordable access to materials and support systems is crucial;
- good quality materials, whatever the media, are essential (quality means relevant, at the right level for the target group, appropriate for the learner's context and time available for study, appropriate for the media chosen and convenient for the learner to use);
- materials for teachers need to be designed in ways that make explicit the linkages to classroom practice if the goal is to transfer teachers' learning into classroom practice and children's learning;
- learner support has an important role in completion and success rates in distance learning systems. Materials by themselves are not enough;
- learners (including teachers) with low educational levels are less likely to be successful in distance learning and require higher levels of support and face-to-face meetings
- the cost-effectiveness is determined by scale (numbers of learners), choice of media and amount of face-to-face teaching or individual contact with tutors or teachers.

### *Lessons from Chinese experience*

Distance education for teacher education in China has had success in most of the areas as mentioned above. The national programme for establishing a technical infrastructure will ensure that access is improved over the next few years. However, the weaknesses listed above are also very evident in China. There are variable levels of learner support, the appropriateness of some of the materials for the teaching context is questionable, there is little 'learner training' in distance courses, and very limited amounts of practical work. There are still issues over

- access to materials and support for teachers in more remote areas;
- the quality and appropriateness of some of the materials for teachers in low resource situations,
- there are few links to practical teaching in the training,
- learner support provision is variable, and very limited in rural areas,
- there is little differentiation of learner levels in distance education for teachers,
- cost effectiveness is hard to assess.

Distance education for teachers in China has mostly provided programmes geared towards subject examinations rather than improved practice. At present, there are new initiatives taking place, both in terms of instructional design and uses of ICT but these are mostly in eastern provinces or major industrialised cities. Overall, the approach to distance education has been teacher-centred rather than learner centred, reflecting practices in conventional education. This project offers new opportunities for shifting the focus to learners and improving the quality of instructional design.

The cost effectiveness and efficiency of distance education systems in China are difficult to determine, despite the efforts of some researchers, because of lack of adequate records and databases. Determining the costs and cost-effectiveness of programmes and technology use is important information that planners need too if they are to make informed choices. This project offers a valuable opportunity to research the costs of provision and use of distance education and ICT. The project offers researchers in the normal universities and other institutions good opportunities to carry out small research projects of

value to policy makers, planners and other teacher educator and of value to the normal universities in developing their capacity in evaluation and research.

### **1.3 GENDER AND SOCIAL ISSUES**

Female teachers in remote areas are often the least qualified, but the most likely to stay in their jobs. Because of low levels of their own education, and family commitments, they are also the least likely to benefit from current professional development opportunities for teachers. The project will provide these teachers with flexible learning opportunities which meet their professional and personal circumstances. Baseline data on gender-related issues will be incorporated into the design and implementation of the current project.

The counties in which the project will operate are among the poorest in the poorest provinces. The teachers the project is targeting are among the poorest, most remote, and least qualified. Particular social issues will include ethnicity, language of instruction, multi-grade teaching. It is essential that provision for their professional development needs is based on a clear understanding of what is appropriate, and what is seen as important by the primary beneficiaries of the project. The design mission spoke to a number of teachers in remote areas, and an initial needs analysis with selected teachers in the target counties was done at the project preparation stage. The findings of this survey are included at Annex 15. Stakeholder analysis is included in Annex 16. During the inception phase of the project a much deeper needs analysis for all target teachers in the counties in which the project will work, and gender analysis will be undertaken and participatory planning processes will be initiated.

### **1.4. RELATION TO UNDAF/CCA**

UNDAF harmonizes the development assistance of all UN agencies to the country, and identifies joint goals, objectives and strategies, so that the effectiveness of the assistance of the UN System is improved and the impact enhanced. The UNDAF for China identified poverty and HIV/AIDS as key challenges to China's social and economic development. It expounds three general goals: (i) promotion of sustainable development to reduce disparities, (ii) supporting favourable conditions for the national reform and development process, and (iii) assisting China in meeting global challenges and promoting international cooperation. These goals are supported by 12 objectives that UN agencies will pursue through their respective mandates and in collaboration with one another. In the area of education, the UN organisations will focus on consolidating the national capacity for quality improvement in Basic Education within the framework of accomplishment of Education for All goals by 2015. Specific interventions will be aimed at increasing primary school attendance rates in minority areas, particularly for girls and at implementing a higher quality, and more child and girl friendly educational environment. Accordingly the government's plans for distance education will be supported in order to accelerate the combination of high quality training aids and curricula particularly in marginal and poor areas.

In support of the national 10<sup>th</sup> Five Year Plan (2001-2005) the programme of UNDP will support all three goals outlined in the UNDAF. In all three thematic areas there will increased use of ICT for development. ICT will be demonstrated as a proven tool to overcome regional imbalances and UNDP will continue to develop models to illustrate the effectiveness of ICT as in increasing the access to remote teacher training institutions through distance learning.

## 2. PROJECT STRATEGY

### 2.1 KEY ISSUES AND CHALLENGES

#### *Access and equity for disadvantaged groups*

The project will assist three poor provinces to improve the quality of primary teachers through targeting the areas and teachers most in need of development. These will include unqualified teachers, those from ethnic minorities and those teaching in teaching-points or schools with only one or two teachers. The project will enable unqualified primary teachers to gain qualifications, upgrade under-qualified teachers to diploma level and assist provinces in implementing the national policy on continuing professional development to improve teaching quality. It will provide training and capacity building in the production of learning resources and make use of ICT as a major strategy for increasing access to learning opportunities and resources. In the course of achieving these aims, the project will strengthen the existing infrastructure for ICT and capacity in its use for teacher education, providing training for all those involved and developing new tested models of practice.

The costs of participation in continuing professional development for teachers are mainly borne by the provincial and county authorities. The costs of programmes that earn teaching qualifications are carried by the students. In these circumstances, access to qualifications for *dai ke* teachers encounters a financial barrier which is unlikely to be overcome by the teachers themselves. The project will help *dai ke* teachers with bridging courses, and will pilot innovative ways of providing such teachers with courses leading to qualifications.

An in-depth needs analysis, and cost benefit analysis for professional development activities for all teachers in the project counties will be undertaken during the initial stages of the project's implementation. Planners installing computers and networks in educational institutions often do not plan for the costs of system maintenance and support. Lack of resource provision can lead to a non-functioning facility or system. High dependence on computers for providing learning materials creates greater problems when they fail.

The cost of trained and available personnel to service computers and networks, and of training staff to make good use of them, is the *largest single cost item* of owning computers. Hardware continues to fall as a percentage total cost of a computer system. The project will take an approach to sustainable use of computers called the **Total Cost of Ownership (TCO)**. This approach examines computer-related investment not only in terms of initial purpose but of all the costs involved in keeping the investment running and supported over the 5-7 year life of a computer investment. A summary of this approach is given in Annex 12. Cost-recovery mechanisms of distance learning services for teacher education shall be piloted involving innovative partnerships with CSOs and private sectors.

#### *Quality and accreditation*

Teacher education in China is a complex system. A summary of information on training programmes, certification and routes to teacher qualification is given in Annex 8. The project will fit with existing levels and forms of certification, and provide wider access to these through distance and ICT, and through the provision of 'bridging courses' for those who do not have the basic entry level educational levels. The focus of the project will be on teachers who are not currently within the reach of certification

training. Particular attention will be given to quality assurance in developing programmes and materials. The development of a quality assurance system and framework within the project offers scope for the construction of a model or prototype for wider use and for consideration in formulating policy on quality assurance on teacher education and distance education.

### ***Partnerships, collaboration and linkages***

For distance education projects, high levels of co-ordination and collaboration are required, especially in providing teacher education programmes. This will be a focus of attention for the project in each province. Mechanisms will be put in place to encourage co-ordination for project (and other) purposes. Partnerships also need establishing with parallel organisations, for example, between distance education providers and provincial Center for Education Technology (PCET). Appropriate organisational linkages and mechanisms need to be worked out as activities develop in each province and this should be a focus of attention in the first phase of the project.

The institutions responsible for teacher education, educational technology and distance education at the provincial level tend to operate in compartmentalised ways. The project will have a role in strengthening educational and organisational linkages between normal universities, colleges, county teacher training schools, as well as the relevant departments of the education departments.

Materials development teams will have members drawn from several levels and institutions, to bring together a mix of experience and expertise and as a mechanism for establishing credibility. Where materials are intended to improve teachers' practice, teams will work with teachers, schools and county level trainers to ensure that the materials are relevant, realistic and have a practical focus which teachers will find useful. All materials will be developmentally tested (i.e., trailed with a small group of learners during the developmental process).

## **2.2 LINKS WITH OTHER INITIATIVES**

The project is in line with national policies and complements the national strategies for teacher education (Annex 4) and for the development of ICT in education (Annex 3). In particular it fits well with the Plan of Action for Rejuvenating education in the 21<sup>st</sup> Century, and the National Plan of Action for Distance education Development. The National plan for using technology for poverty alleviation using Distance Education, managed by NCET, will provide the fundamental infrastructure support for this project. Other multilateral and bilateral initiatives that use distance education for teacher education are listed in Annex 9. Meetings with other organisations, at the beginning and end of the design stage, have ensured that the project will complement, and utilise the experiences of, other initiatives in its implementation. In addition the project will actively promote South-South cooperation to learn from experiences of other developing countries at the cutting edge of distance teacher training.

By building on, and extending the application of national policies and strategies in teacher education, ICT and distance education provision to the poorest and most remote regions of China, the project will pilot new models of, and methodologies for, effective continuing professional development for teachers in remote and poor areas of China. The project will build robust and sustainable models which, through dissemination activities, can be replicated in other counties and provinces. It is envisaged that such replication work will be initiated in other counties/provinces during the project's life. The project management will also work closely with other international initiatives in this area, and ensure that project activities promote complementarity and synergy with other initiatives, and not duplication

The project offers a unique opportunity to implement and extend national policy and strategy in the poorest and most remote areas of China, providing both national and provincial governments with evaluated, working models of effective teacher development using ICT and distance mechanisms.

Provided the project demonstrates that this can be done in a cost-effective way, with sustainable ongoing budgetary implications, the likelihood of replication beyond the project will be greatly increased.

## 2.3 KEY ELEMENTS OF THE PROJECT STRATEGY

Without the use of distance education and ICT for teacher education and training, the provinces will be unable to reach the government set targets for teacher certification and teacher participation in continuing professional education. The use of distance mechanisms will help to improve the quality of primary education and teacher education in the provinces. The project will maintain a 'bottom up' focus, ensuring that the provision meets the need of the target groups of teachers.

Distance education will play a major part in achieving project aims because it has the potential to reach large numbers of students and provide learning resources to remote learners. It can provide training while teachers remain at work and has shown itself to be a flexible strategy. It already has strong policy support from central and provincial governments. However it also depends for its success on the quality of the learning materials, the provision of accessible local support, efficient delivery and administrative systems, effective co-ordination of the people, institutions and departments involved and communication among them. The project will focus on these elements.

Key elements of the strategy will involve:

- Collection of *baseline information* of educational achievement, current provision and undertaking *professional needs analysis* for the teachers in remote schools in the target counties, and for those involved in promoting and delivering professional improvement processes to such teachers.
- Designing *appropriate courses* for teachers, heads, trainers, backbone teachers, materials developers and administrators
- Providing *training* for all those involved in different roles (materials developers, instructional designers, co-ordinators, administrators, teacher trainers, backbone teachers, headteachers);
- Providing *learner support* at the local level, especially for learners with low educational levels or from remote or rural areas;
- Developing township central primary schools as *resource centres* for teachers and, additionally, for the community. Piloting *cost-recovery mechanisms* of distance learning services for teacher education involving innovative partnerships with NGO/NPO and private sectors.
- Creating *quality standards* for materials and processes and increasing the amount and relevance of *information and learning resources* available to rural teachers, and developing materials and systems which are more learner-focused;
- *Working in teams* involving members from different levels of the system and different departments and institutions;
- Using *monitoring, evaluation and research* for management and quality improvement purposes;
- *Aligning with national and provincial policy* and *collaborating and resource-sharing* with other institutions and projects working on similar or related programmes;
- *Sharing and disseminating experience* within and among provinces, and more widely for policy influencing;

### *Project Beneficiaries*

The following target groups have been identified as the main focus of the project:

- all primary teachers and headteachers in identified poor communities within nine poverty counties in the three targeted provinces. These teachers will be the focus for a continuing professional development programme to improve the quality of teaching and prepare for the new curriculum.
- Primary teachers who do not have the appropriate level of qualification ( *including dai ke teachers*). These will be the target for courses which will enable such teachers to obtain necessary qualifications.
- Primary teachers from or working with minority language areas will receive appropriate teacher training from the project.
- Female primary teachers (both dai ke and backbone) who outnumber male teachers in terms of lacking educational opportunities and qualifications are a particular focus of this project which aims to increase gender equity among the teaching corps.

The balance between the target groups of teachers is likely to differ among the three provinces, since their needs and policies vary to some extent. In providing programmes for teachers, whichever group they fall into, teacher trainers at all levels (especially the county level) will be another key group of learners, as will materials developers.

Indirect beneficiaries are the primary-school children taught by the targeted teachers.

### ***Criteria for selecting counties***

Criteria for selecting counties in each province were agreed as follows:

- Counties with difficulty in reaching their 9-year compulsory basic education targets.
- National or provincial level officially designated poverty counties
- Counties most in need of support for rural primary teachers, primary teachers with low levels of education and qualification, female and ethnic minority teachers, and counties with a high number of single-teacher schools.
- The presence of a county level in-service training centre.
- The county town is able to connect with internet and selected township schools have electricity.
- The county is included in the GoC national programme for distance education

The three provinces have identified three counties each which will implement the project. These are

- ***Gansu:*** Jingning, Huating, Tianzhu counties.
- ***Sichuan:*** Xuyong and Pingwu counties, Mabian Yi minority autonomous county.
- ***Yunnan:*** Fuyuan, Shuanbai counties, Lancang Lahu minority autonomous county.

The county profile is shown in Table 1 as follows.

**Table 1: The project counties profile**

<i>Province</i>	<i>Project Counties</i>	<i>Geographic location</i>	<i>Number of townships</i>	<i>Total Population (poor population)</i>	<i>Average Annual Per Capita Income (RMB)</i>	<i>Composition of the nationalities</i>	<i>Levels of poverty and number of people living under the national poverty line*</i>
Yunnan	Fuyuan county, Qujing district	Located in the mountainous areas near the border between Guizhou and Yunnan provinces. 230 km northwest of Kunming city.	11	652,000	1,590	The mixture of over 20 nationalities with Han nationality as the dominant one.	nationally designated poor county 174,179
	Shuanbai county, Chuxiong autonomous prefecture of the Yi nationality	Near Ailao mountain ranges, 280 km northwest of Kunming city.	10	114,000	844	The mixture of 18 nationalities with the Yi nationality taking up one third of the total.	nationally designated poor county 50,214
	Lancang autonomous county of the Lahu nationality, Simao district	699 km from Kunming city	14	466,000	578	The only Lahu nationality autonomous county nationwide	Nationally designated poor county 279,400
Sichuan	Xuyong county	400 km from Chengdu, the province capital city.	26	654,600	1430	-	Nationally designated poor county 38,000
	Pingwu county of the Mianyang prefecture	280 km from Chengdu	25	186,000	1,414	-	Provincial designated poor county 24,732
	Mabian Yi autonomous county	360 km from Chengdu	29	175,000	1,235	Yi nationality	National designated poor county 43,271
Gansu	Huating county, Pingliang region	460 km southeast of Lanzhou, near the boundary between Shanxi, Gansu and Ningxia provinces	12	173,000	1,485	Two Hui autonomous townships	Provincial designated poor county 42,000
	Tianzhu autonomous county, Hexi region of Wuwei city	150 west of Lanzhou, the capital of Gansu province	22	290,000	1,180	Tibetan	National designated poor county 106,000
	Jingning county, Pingliang region	280 km east of Lanzhou	30	460,000	1,234	Muslim	Nationally designated poor county 96,700

\* The national poverty line is RMB635 per year per capita and US\$ 1.00 = RMB 8.26

### ***Scale of the project***

Indicative figures for the scale of the project are given in Table 2 which shows the number of primary teachers involved. It assumes an equal distribution across the three provinces. The project will take place in the poorest communities in three counties in each province and in all the central primary schools in each township in the selected counties.

**Table 2: Scale of the Project**

Province	County	Total primary school teachers	Male	Female	Minority	Formal & % up to state qualification requirements	Daike & % up to state qualification requirements	No. of single teacher schools	9-year compulsory education target achieved
<b>Yunnan</b>	<b>Fuyuan</b>	4,023	2,726	1,297	246	2,843 92.97%.	1,180 35%	404	90%
	<b>Shuanbai</b>	1,390	760 (only formal)	492 (only formal)	276 (only formal)	766 95.12%.	138 (no sex disaggregated data available) 35%	169	87%
	<b>Lancang</b>	3,742	2,045	1,697	1,837	2,568 88.6%	1,174 42.4%	398	30%
<b>Sichuan</b>	<b>Xuyong</b>	2,420	1,330	1,090	140	1,620 97.1%	800 38%	329	93%
	<b>Pingwu</b>	1,270	659(only formal)	489 (only formal)	347 (only formal)	1,026 86.5%	122 (no sex disaggregated data available) 20%	79	87.2%
	<b>Mabian</b>	1,207	769	438	325	1,013 82.8%	194 36%	53	10.01%
<b>Gansu</b>	<b>Huating</b>	1,120	679	441	142	960 94.9%	160 25%	52	92.8%
	<b>Jingning</b>	3,415	2,648	767	14	2,807 95.7%	608 25%	57	95.5%
	<b>Tianzhu</b>	1,874	1,179	695	802	1,629 94%	245 25%	119	87%

## ***Strengthening County Level Teacher Training***

The county level of teacher training is a key target for improvement in the project. The building of capacities which are widely reported to be weak, will be essential for the success of this part of the project. A clear distribution of roles and responsibilities between provincial and county levels is crucial for capacities to be mutually reinforcing and complementary. Levels, roles and responsibilities are indicated in Table 3 as follows.

**Table 3. Levels, roles and responsibilities**

<b>Level</b>	<b>Role and Responsibility</b>
Provincial Education Department/leading group	Policy making Coordination Financial input and management Management Monitoring & records
Advisory Committee	Advise Endorse annual working plan Steer programme development
Normal University/other partners	Development of teaching materials Coordination Technological support Research & evaluation Training trainers Learning support Testing
Prefecture level teacher training colleges	Distribution of teaching materials Part of teaching materials compilation under coordination of Normal University Training trainers at lower level Technical support
County Education Bureau	Financial support Management, employment and assessment of local teachers County-level policy making
County In-service Training Centre/County Education Research Center	Visit schools Organize learning activities Record-keeping Trouble shoot Local standards Enrollment Face-face tutoring Testing
County Center for Education Technology	Technical maintenance
Township Central Primary School	Group learning Educational resources distribution Provide services to teaching points Increase of teaching materials & learning opportunities Services by backbone teachers Support from Headteacher

## ***The role of township central primary schools as resource centres***

Teachers' resource centres are intended to encourage professional interaction, provide access to resources and learning materials and encourage some level of curriculum development and materials creation. International research identifies several lessons which are relevant for this project where the township central primary schools are intended to play a key role in developing and supporting rural teachers.

Lessons from experience show that teachers' resource centres are successful when:

- the centre has equipment and resources which are useful for the teacher and easily available when needed;
- the centre is easily accessible to teachers (in terms of distance or travel time and opening hours);
- experienced, trained centre co-ordinators are available to facilitate activities;
- activities are strongly related in a practical way to the teacher's own context of work, and embedded in ongoing teaching plans, not isolated events;
- when new methods being introduced have some similarity to what they are already doing;
- centre co-ordinators (backbone teachers) follow-up, on a regular basis, the teachers participating in centre activities. This requires visits to schools and has resource implications (travel costs and time, weighting in workload);
- centres have some recurrent budget for the purchase of some simple consumables (paper, glue, scissors etc);
- sufficient training and coaching is provided in the use of computers, if available;
- centre co-ordinators have clear definition of their role, communicated to all, and also training for their roles as adult tutors;
- training is linked to school textbooks.

Where local resource centres for teachers have been successful, outcomes have included improved morale in teachers, an increase in their status, the development of a professional culture, greater community involvement and understanding of education, a greater willingness to try out new teaching approaches.

In addition to being a resource centre for teachers, these schools will also take on the role of community ICT support centres. Further details are found on the following section "Use of Technology and ICT".

## ***Resource sharing and regional strengthening***

Given that three western provinces are participating in the project, there are opportunities for resource sharing to maximise the learning materials and use of expertise. One application of ICT within the project will be the development of websites for teachers and trainers. These provide one way of sharing experience and materials and enable interaction between teachers, and teachers and trainers. Core group will take a lead role in developing a website for the project, with links to other resources.

Possibilities also exist for sharing the teacher education materials developed in the DFID Gansu Basic Education Project, in the UNDP (CPR/96/401) basic education for girls project and UNICEF's CD-ROM (training teachers to use computers) and video materials (on multi-grade teaching). All existing materials should be mapped in the inception phase of the project.

## *The use of technology and ICT*

ICT will be used in the project for three main purposes:

- To deliver training materials.
- To provide a means of interaction between teachers, and between teachers, teacher trainers and others.
- To provide greater access to information and educational materials, either through accessing databases or websites or where connectivity is limited, through CD-ROMs.

Though the use of ICT will be a major strategy within the project, it will not be the only technology used. Choices of media and technologies need to be made in relation to the infrastructure, learner conditions at different levels and teaching purpose. Different possibilities exist at different levels. Annex 5 covers some of the options for this. The infrastructure and teacher/student access to it varies from provincial centre to township level, as the Sichuan example in the following Table 4. Materials and programmes need to be designed in relation to realities like these. The availability and configuration of the technologies in the different provinces will shape the programmes and materials.

**Table 4. Availability of technologies at different levels: an example from Sichuan**

<b>Level</b>	<b>Technologies</b>
National/regional	Satellite delivery of television available at all levels Satellite delivery of IP technology, delivering digitalised data to computers (+ netcard) (speed 1 mbps), available at all levels.
Provincial Education Department	Internet for communication, website (for official information and regulations);
Sichuan Normal University	Internet, website. Television Video-conferencing + whiteboard in multi-media classroom. Print production facility. Video for microteaching. CD-ROM Audio-cassettes. Computers
Mabian Yi Autonomous County Bureau	Little available.
Township central primary school	Television Video-cassettes Print CD-ROM if computers provided and electricity available. IP delivery of data to computers (one-way)

Skills in instructional design and in using ICT for teacher education are developing more slowly than the availability of the technology so *training will be a critical factor* in achieving success. The provision of computers and the establishment of connectivity is the beginning of learning activities, rather than an end point. Computers and Web-based programmes can serve a variety of purposes in teacher education. International experience so

far in the uses of Web-based technologies for teacher education is summarised in Annex 5. The summary can be used to guide the planning of Web-based programmes and for identifying the training needs.

The **organisation of the ICT teaching system** in the project places the Normal (teachers) University at the centre of the teaching structure. A diagram showing the structure is given in Annex 6. The Normal University has the responsibility for developing materials, providing courses, training trainers and managing ICT resources, including the construction and maintenance of websites. The use of ICT will support two different approaches: the electronic classroom model, already in use, and resource-based learning for supported self-study. The network includes one centre in each of the three counties in a province, linking them into a common network with multi-media classrooms at each site. Annex 6 shows the organisational structure of the teaching system based on a computer network hosted by the normal universities. For township central schools IP technology delivered by satellite provides digitalised data (including video streaming) to computers, if a netcard and antenna are provided. This enables township central primary schools to receive data (text, video, audio, and graphics) which they can download and store. It does not enable them to access Internet or Web-sites other than through dial-up connections. However, it provides fast access to a large amount of learning resources. Training for teachers is needed in how to make use of these for teaching and learning and some recurrent budget is needed for the associated costs of consumables (this issue is raised later in this document).

**Connectivity varies according to level.** Fast broadband two-way interaction is possible from the national and provincial level down to the county level and occasionally lower. At township levels one-way delivery from higher levels can be fast (via IP technology) but the dial-up connections are slow and expensive to use. Access to some of the databases for township central primary schools is better provided on CD-ROM or through IP delivery. Interactivity at the township and school level will be horizontal rather than vertical, that is, with other teachers, with local teacher trainers, with neighbouring schools and with the county. Backbone teachers in schools have an important role to play in mobilising local activities with teachers.

The infrastructure needed for this will be strengthened though government contribution to the project. Some of this is already in progress through the NCET projects and government investment in education in western China. The minimum equipment needed for project purposes is listed and costed (at January 2002 prices) in Annex 7.

**Sustainability.** It is likely that much of the ICT infrastructure will need upgrading or replacing during the project's lifetime. Provincial and county commitment to maintaining , upgrading and replacing ICT hardware as required, as part of the overall upgrading of educational infrastructure. Maintenance, upgrading and replacement costs for ICT infrastructure and equipment will need to be included in provincial recurrent education budgets from early in the project, ideally from year two. Community use of the infrastructure on a cost recovery basis (output 6) will provide additional income for maintenance/upgrading/replacement of ICT equipment and infrastructure.

Community use can include fee for service ICT training, agro-technology training, cyber weather services, and dial-up internet services. To help ensure ongoing use of these services, the project will include training in ICT installation, maintenance, upgrading and repair for at least two persons in each resource centre.

### 3. Project Results and Resources Framework

#### 3.1 GOAL, PURPOSE AND OUTCOMES

The *goal* of this five-year project is *to improve the quality of primary school education in three western provinces of China.*

The *purpose* of the project is *to deliver high-quality, distance teacher training for primary teachers (especially daike teachers, female and minority teachers) in the poorest communities of nine counties of Gansu, Sichuan and Yunnan provinces.*

The project will extend access to learning opportunities, resources and support for rural primary teachers. These provisions will address not only professional development in terms of knowledge and skill, but also build teacher motivation and engagement. The project's innovative use of ICT in teacher training will have the added benefit of building institutional capacity in the use of ICT and distance education for teacher training.

Indicators of achievement of the purpose will include:

- Improvement in the quality of learning and teaching in basic education in the poorest communities of the 9 counties in which the project will work, measured by:
  - Increased numbers of qualified primary teachers, particularly women and ethnic minority teachers.
  - Increased number of classroom methodologies used by primary teachers.
  - Improved classroom learning/teaching behaviors by pupils and teachers.
  - Increased school retention rates for pupils.
  - Improved pupil achievement.
- Strengthened local provincial and national capacity and programmes for developing and managing the use of distance education and ICT for primary teacher education.
- Development of sustainable, replicable models of distance education for remote poor areas which are cost-effective and self-financing so as to maintain services and facilities.

#### 3.2 PROJECT OUTPUTS, BASELINES AND INDICATORS

##### *Summary of outputs*

Outputs which contribute to the project purpose and goal are:

Output 1. The quality of primary school teachers is improved in terms of their professional knowledge and skills through piloting and implementing new models for teachers professional development

Output 2: The number of primary teachers with the requisite qualifications is increased through their achieving required certificates/diplomas. In

particular, dai ke teachers as well as female, and minority language teachers (if any) will be targeted.

- Output 3: A cadre of primary backbone teachers and school heads able to lead and support curriculum reform and professional development in schools is developed.
- Output 4: The capacity of teacher trainers is strengthened, particularly in the design and use of ICT and distance education for primary teacher education at the levels of normal university, county and school.
- Output 5: Access to learning opportunities and materials is increased for all primary teachers and networks of professional development and resource centres at township central primary schools are established. Primary teachers working in remote areas are provided with assistance in accessing the resource centres
- Output 6: Cost recovery mechanisms of distance learning services for primary teacher education piloted involving innovative partnerships with the private sector and NPO/ NGOs.
- Output 7: Experience and materials from the project are shared beyond the project and evidence-based policy recommendations on the use of ICT and distance mechanisms for primary teacher education, with special reference to poor rural areas, are produced and disseminated nationally.

## ***Outputs, baselines and indicators***

**Output 1.** *The quality of primary school teachers is improved in terms of their professional knowledge and skills through piloting and implementing new models for teachers' professional development.*

### **Baseline**

The quality of primary teaching is generally low, even when teachers have qualifications. The programmes leading to qualifications often have little or no content on professional studies (pedagogy, psychology and practical skills such as classroom management or the preparation of low-cost teaching and learning aids). The qualifications of many teachers are not in the subjects they teach or those needed for the school curriculum.

The new school curriculum and the new teacher education curriculum will introduce major changes in concepts and approaches in education and teaching, as well as new subjects such as ICT. The Ministry of Education places a high priority on improving teacher quality through continuing professional development and has set targets for participation by teachers (240 hours over five years). However, the current distance education for teachers focuses on subject examinations rather than improved practice. There is little interactivity, and little focus on teacher/learner needs, but rather focuses on the external requirements of examinations. Provinces have the responsibility for making the provision to enable teachers to reach the targets but some provinces have difficulty in financing it. In some cases targets have been reached through designating some of the required hours as 'self study' though without the provision of learning materials or teacher support.

### **Indicators**

In the indicators below, the numbers of teachers participating represent the indicative total figures for all three provinces.

1. 20,000 primary teachers, at least 50% of whom are women, have participated in training programmes and activities enabling them to reach the required total of 240 hours' of continuing professional education over five years. Teachers have received a certificate of continuing education on satisfactory completion.
2. 10,000 primary teachers, at least 50% of whom are women, have learned basic computer literacy skills and a proportion of these has achieved a competency-based 'Computer Driving Licence'.
3. 20,000 primary teachers, at least 50% of whom are women, have participated in programmes in curriculum subject content and upgraded their levels of knowledge in the subjects they teach.
4. Primary teachers demonstrate, in the course of their everyday teaching, a wider variety of teaching approaches, more active learning methods (for whole class, groups, pair and individuals) and use of low-cost basic teaching and learning aids, made by teachers and with community help. The products of children's work are visible in classrooms.
5. Township central primary schools act as a resource centre for primary teachers, providing learning materials for teachers and facilitating exchange among primary teachers of experience and practices, coordinated by backbone primary teachers.
6. Reflective practices for training, such as case studies, group discussions, action research are widely used
7. A culture of professional enquiry amongst primary teachers is widespread, and community involvement in education increases
8. Primary classroom practice includes a wider range of teaching methodologies, cultivating an "active learner" culture.

**Output 2.** *The number of primary teachers with the requisite qualifications is increased through their achieving required certificates/diplomas. In particular, dai ke teachers as well as female, and minority language teachers (if any) will be Targeted.*

### **Baseline**

The number of unqualified or dai ke (substitute) teachers is high in some rural or remote areas. The percentage of dai ke teachers varies among the three provinces and among areas within them, but on average is said to be around 10 percent. Gansu and Sichuan have higher levels of dai ke teachers than Yunnan. These teachers have low levels of education (some have only 1-2 years of secondary education), low salaries and little access to learning opportunities. Graduates of senior secondary schools are qualified to teach primary classes but are sometimes teaching secondary classes in poorer areas, though they lack the required college diploma and levels of knowledge.

### **Indicators**

1. A number (to be determined by each province/ totalling approximately 2000) of *dai ke* teachers, at least 50% of whom are women, (mainly in the more rural areas rather than in township centres) have achieved qualifications as a result of project provision.
2. 3000 primary teachers, at least 50% of whom are women, have participated in an upgrading qualification programme to diploma level (awarded on the basis of the National Unified Examination), taught partly through distance education and ICT.
3. The needs of female primary teachers as well as language minority and remote teachers have been taken into account in the design of the programme.

**Output 3.** *A cadre of primary backbone teachers and school heads able to lead and support curriculum reform and professional development in schools is developed.*

### **Baseline**

Existing policy for teacher education places great emphasis on backbone teachers as a means of improving the quality of teaching. However, training provision for them is inadequate in poorer counties and there is a wide gap in provision between richer and poorer areas. They are selected as being better than average teachers but need developing in terms of their role, as leaders of change, mentors, tutors and trainers of adults, group leaders and resource persons. They will have a key role to play in promoting township central schools as resource centres for the professional development of rural teachers.

The important role of headteachers as key agents in school improvement is widely recognised. Headteachers in this case have received training in their role and duties but not on the new curriculum and the use of ICT. They know in theory what is 'quality education' (*suzhi jiaoyu*) but are not sure how to implement it.

### **Indicators**

1. All backbone primary teachers in project counties have completed an 80 hour programme of training in curriculum development and reform. Upon successful completion of this programme, a certificate is awarded. Backbone primary teachers leave programme with an "action plan" for implementing what they have learned in the classroom.
2. All primary headteachers have participated in a 2-day workshop with backbone primary teachers on the headteachers' role in schools and support for the work of the backbone primary teachers.
3. Backbone primary teachers and headteachers develop joint action plans for implementing reform in each school, and implement them.
4. Channels of communication among backbone primary teachers are established (through newsletters, regional meetings, website) and meetings at intervals have been organised (number of meetings to depend on local circumstances and budgets). The function of these meetings and communication is to share progress and frustrations as backbone teachers fulfil their action plans and implement curriculum reform in their schools.

5. All headteachers have participated in the training courses provided and completed them satisfactorily.
6. Materials for headteachers have been developed, piloted and distributed and are available in CD-ROM form or on the project website. Materials to include case studies (a form of training found particularly valuable in other countries for training headteachers in their management role).
7. Programme is evaluated, focusing on changes in leadership style, and extent of focused and managed curriculum and professional development activities in primary schools.

**Output 4.** *The capacity of teacher trainers is strengthened, particularly in the design and use of ICT and distance education for primary teacher education at the levels of normal university, county and school.*

### **Baseline**

There is at present no organisation in charge of training teacher trainers, many of whom lack appropriate experience, knowledge (of professional studies) and skills as trainers. There are few professional development opportunities for them. In the teachers' training schools (county level) the total number of trainers is nearly 200. More than 40% of these have only 2 years of college education (some by self-study) and little access to learning opportunities. They lack the required normal university diploma and levels of knowledge. They have limited knowledge about adult learning (the teachers they train) and skills in adult tutoring and teaching. They have limited knowledge of the new curriculum and some have not taught in schools.

There is a strong national policy framework for the development of ICT and distance education. There is also considerable investment by the government in the development of infrastructure and provision of equipment in Western China. Fast broadband connectivity is in place from provincial to county level institutions, enabling video-streaming and two-way communication using text, graphics, data, video and sound. Institutional LANs (Local Area Networks) are established and multi-media classrooms, in some cases with multi-site configurations, are increasing. Some teacher education institutions (colleges and university) have microteaching facilities. Satellite delivery can provide video and computer-based materials to townships but only one way: return interactivity is possible by dial-up connections (slow, narrow bandwidth and higher cost of use than in urban centres). Although the technology is available in many places (though not yet in all rural areas), its use for teaching is often limited, failing to capitalise on the potential of the media for teaching and learning. Many examples can be seen in all provinces of the technology being used to replicate traditional forms of teacher instruction. In some cases, 'older' technologies are neglected or not used to good effect because of weak instructional design. At the same time, the establishment of ICT offers new opportunities for reaching teachers, providing greater access to information and learning materials, and interactivity where the infrastructure permits.

### **Indicators**

1. 200 county-level teacher trainers, at least 50% of whom are women, have participated in a gender-aware training programme.
2. An appropriate programme provided by the Normal University will build skills in the design of primary teacher training programmes, using the full breadth of ICT (digital, print, radio and other media) as well as a gender lens in instructional design.
3. Materials are developed and distributed. A network of primary teacher educators is created (using a web-site as one option) through project-based learning in which teachers collaborate.
4. A well-functioning primary teacher education delivery system is used appropriately. The design of the delivery system reflects input from the teacher trainers themselves.
5. Courses and materials of good quality are available (quality judged in terms of indicators set as a standard).
6. Personnel are trained and competent in the use of the system and media.
7. Evaluations of courses take place on a routine basis and are available.
8. The results of primary teachers' project-based learning are available for other teachers to study and reflect on. A conference may be held in which primary teachers can share insights and ideas based on their professional development courses.

**Output 5.** *Access to learning opportunities and materials is increased for all primary teachers and networks of professional development and resource centres at township central primary schools are established. Primary teachers working in remote areas are provided with assistance in accessing the resource centres.*

### **Baseline**

At present very few learning materials are available for teachers, especially rural teachers, other than regular textbooks. For rural teachers, contact with other teachers and organised activities with teacher groups are very limited, further restricting the opportunities for professional development. Many rural teachers have expressed the need for information and materials of all kinds, not just on teacher education, because they teach in a resource-poor environment. The project has the potential to increase the input of information, materials and opportunities for contact with other teachers.

### **Indicators**

1. A wide range of materials is available for primary teachers at township central primary schools and when teachers attend workshops at county level. A minimum of 25 booklets are available on the seven main subject disciplines, the new curriculum, teaching methods and more materials are available using other media. Materials are posted on websites and available in CD-ROM form. Primary teachers and teacher trainers are able to access the facilities, materials and services provided. Teacher trainers are able to access web-sites which give information, provide discussion groups and store resources for downloading. (TO COME during inception phase: Additional strategies for supporting teachers in remote areas are identified and implemented, including possibly assistance with transportation).
2. Township central primary schools have primary teachers' resource centres which contain materials and equipment and have a co-ordinator in charge (backbone teacher).
3. Meetings and training workshops have been conducted, based on the materials available.
4. A significant proportion of primary teachers attending the centre are women and from remote areas and poor communities. A travel assistance scheme is in place to facilitate access and involvement of primary teachers from remote areas.

**Output 6.** *Cost recovery mechanisms of distance learning services for primary teacher education piloted involving innovative partnerships with the private public partnership (PPP) and Non-Governmental Organisations (NGOs)/Civil Society Organisations (CSOs).*

Deleted: sector and CSOs.

### **Baseline**

Resourcing the maintenance and support systems for ICT based distance education (which can take up to 50% of initial costs) does not currently figure large in planning for ICT systems. For reasons of sustainability it is important to establish a careful cost analysis for keeping the investment running and supported over the 5-7 year life span of computers. A key element in sustainable use of ICT resources is the availability of trained personnel. At present, there is no system in place to maintain a cadre of people with expertise in these areas within the education system. Similarly, there is no system in place for funding maintenance, upgrading and replacement of IT infrastructure or equipment. This output will seek innovative ways of providing recurrent funding for ICT through making full use of it by providing the wider community with access, on a fee for service basis.

### **Indicators**

1. At least one public/private partnership model agreed and implemented with an organization holding a track record of success in this area.
2. At least one model teacher-training institution established in each province which is generating income towards cost recovery through outreach services to the community.
3. One partnership programme with the private sector or a CSO designed and implemented extending the outreach of the project activity.
4. Project experience in cost recovery outreach activity is monitored, evaluated and lessons learned disseminated both within the project provinces, and nationally

**Output 7.** *Experience and materials from the project are shared beyond the project and evidence-based policy recommendations on the use of ICT and distance mechanisms for primary teacher education, with special reference to poor rural areas, are produced and disseminated nationally.*

### **Baseline**

Though a number of projects and initiatives are taking place, information exchange about them is weak. Existing experience and materials need better dissemination and the project will generate more to add. Cooperation between other national and international projects is limited and sometimes effort is duplicated unnecessarily. The project has the potential to increase the amount of sharing that is possible and to distribute knowledge about various resources through a variety of means and with the assistance of network technology and the Core Group.

Policy on the use of distance education and ICT in general and in relation to poor areas is developing but so far is informed by limited experience. The same is true for teacher

education. The project has the potential to produce soundly based findings from evaluation and analysis of experience to inform policy development.

### **Indicators**

1. Ongoing information from project monitoring and formative evaluation activities, including the baseline study and stakeholder analysis, is produced in various forms (print, video, CD-ROM and web-sites) and widely distributed.
2. Dissemination activities have taken place in the form of publications, media and conferences.
3. Evaluation, research and policy studies have been conducted.
4. The evaluation studies and analyses of experience have been rigorously conducted and reach sound conclusions and recommendations as a result. They are presented in a clear and understandable way to enable non-specialists to understand them.
5. Evidence based policy recommendations, linked to national strategies both for teacher training reform and the development of ICT provision for poor regions, are presented to national and provincial authorities.
6. Replication of project models is initiated in other parts of China during the projects lifetime
7. Disseminate successful project experience in the use of ICT for teacher training to 20,000 schools in the 130 counties of the national distance education project for poverty alleviation.

### 3.3 RESULTS AND RESOURCE FRAMEWORK

***Intended Outcomes as stated in the Country Strategic Results Framework:***

1. Increased access of rural poor to ICT through expanded collaboration between the public and private sector and civil society organizations (CSOs)
2. The policy and planning framework of the country incorporates a comprehensive approach to and specific targets for the reduction of human and income poverty and addresses the HIV/ AIDS epidemic and natural disasters prevention

***Outcome Indicators as stated in the Country Program Results and Resources Framework, including Baseline and Target:***

1. Estimated number and proportion of the population with access to the Internet disaggregated by gender.  
*Base line:* 30 million internet users in China among them 85 % male and 15% female. 13% of internet users located in the West  
*End SRF target:* 65 % male and 35% female among internet users which is estimated to reach 100 million by 2005.
2. Adoption by the country of national targets for reduction of human and income poverty, disaggregated by gender and regions/areas.  
*Base line:* Current National targets are based on income and food consumption, and are not disaggregated by gender. The Government is now preparing the national poverty reduction plan for the next decade.  
*End SRF Target:* New national poverty reduction policy/plan will have adopted a comprehensive approach addressing both human and income poverty with specific targets disaggregated by gender and regions.

***Applicable Strategic Areas of Support (from SRF):***

1. Access to and utilisation of information and communication technologies
2. Development and implementation of macro- and poverty reduction policies and strategies.

***Partnership Strategy:***

UNDP is the leading agency among donors in China in promoting the use of ICT for poverty reduction through the establishment of community telecenters and flexible distance learning. UNDP chairs a consultative committee under the ICT for Poverty Reduction project with participants of CICETE, MOST, MII, MOE, MOA and LGOPR. UNDP convenes donor coordination meetings on distance learning initiatives.

Cooperation with the following partners will be sought under the present project:

- Ministry of Education National Project on Distance Education
- National Center for Educational Technology (NCET) under Ministry of Education
- UNICEF Distance Education Project
- CIDA Distance Education project
- EU Basic Education Project
- DFID Basic Education Project in Gansu Province
- other development cooperation projects which might start in the near future,
- non-governmental organizations,
- the private sector, business associations,
- local research and training institutions as well as universities,
- civil society.

The project implementing agencies will consider the appropriate involvement of these partners in their annual planning and experiences sharing.

***Project title and number:***

***Using Distance Education and ICT to Improve Teacher Quality in Poor Areas of Western China, CPR/01/403***

<b>Intended Output</b>	<b>Output targets (for years)</b>	<b>Indicative Activities</b>	<b>Input</b>
<p><b><u>Output 1.</u></b>  <i>The quality of primary school teachers is improved in terms of their professional knowledge and skills through piloting and implementing new models for teacher professional development.</i></p>	<p>In the indicators below, the numbers of primary school teachers participating represent the indicative total figures for all selected nice counties of the three provinces.</p> <ol style="list-style-type: none"> <li>20,000 primary teachers, at least 50% of whom are women, have participated in training programmes and activities enabling them to reach the required total of 240 hours' of continuing professional education over five years. Teachers have received a certificate of continuing education on satisfactory completion.</li> <li>10,000 primary teachers, at least 50% of whom are women, have learned basic computer literacy skills and a proportion of these has achieved a competency-based 'Computer Driving Licence'.</li> <li>20,000 primary teachers, at least 50% of whom are women, have participated in programmes in curriculum subject content and upgraded their levels of knowledge in the subjects they teach.</li> <li>Primary teachers demonstrate, in the course of their everyday teaching, a wider variety of teaching approaches, more active learning methods (for whole class, groups, pair and</li> </ol>	<p><u>Needs analyses/baseline information (output targets 1-8)</u></p> <ul style="list-style-type: none"> <li>Map level, type and distribution of priority groups and needs in project counties in all three provinces.</li> <li>Map existing provision and learning resources and identify gaps.</li> <li>Collect baseline information of participation rates and levels of achievement of children in project schools/classes of participating teachers.</li> </ul> <p><u>Course design</u></p> <ul style="list-style-type: none"> <li>Set the standards for 'satisfactory completion', other than participation or attendance. (output target 1)</li> <li>Outline plans for continuing education programmes and materials development embracing new teaching approaches and methods of active learning (output targets 2 &amp;3)</li> <li>Develop a programme in basic computer literacy skills for primary teachers and develop a more advanced programme for a Computer Driving Licence award. (output target 4)</li> <li>Colleges (in collaboration with the normal university) to plan and provide part-time courses using a mixture of face-to-face and distance education, the combination to be appropriate for the target groups identified, including teachers in ethnic minority languages. (output target 6)</li> </ul>	<p><u>US\$ 80,000 Needs Assessment</u></p> <p><u>1month international and national consultant US\$ 22,000</u></p> <p><u>2month international consultant, 6 month national consultants US\$ 68,000</u></p> <p><u>Subcontract US\$ 130,000</u></p> <p><u>Subcontract US\$ 200,000</u></p>

	<p>individuals) and use of low-cost basic teaching and learning aids, made by teachers and with community help. The products of children's work are visible in classrooms.</p> <p>5. Township central primary schools act as a resource centre for primary teachers, providing learning materials for primary teachers and facilitating exchange among primary teachers of experience and practices, coordinated by backbone primary teachers.</p> <p>6. Reflective practices for training, such as case studies, group discussions, action research are widely used</p> <p>7. A culture of professional enquiry amongst primary teachers is widespread, and community involvement in education increases</p> <p>8. Classroom practice includes a wider range of teaching methodologies, cultivating an "active learner" culture.</p>	<p><u>Resource centre schools</u></p> <ul style="list-style-type: none"> <li>Define and communicate role and equipment requirements of township central primary schools as primary teacher resource centres and the role of backbone primary teachers in leading them and counties in supporting them. (output targets 6,8,7 &amp;8)</li> <li>Provide minimum equipment needed for central primary schools to function as designed. (output target 5)</li> <li>Develop and provide a learner support system so that any self-study is supported by tutor contact and interaction. (output target 5)</li> </ul> <p><u>Training</u></p> <ul style="list-style-type: none"> <li>Conduct certificate training courses for continuous professional development to primary school teachers, including ethnic minority language teachers. (output targets 6,7 &amp;8)</li> <li>Provide training courses on basic computer literacy skills. (output target 4)</li> <li>Set up twinning arrangement with appropriate teacher education institution in eastern China and/or in project provinces through training. (output targets 7 &amp; 8)</li> </ul>	<p><u>2month international consultant, 4 month national consultant</u> <u>US\$ 56,000</u></p> <p><u>1,330,000 Equipment</u></p> <p><u>US\$ 300,000</u> <u>Contracts</u></p> <p><u>US\$ 1,200,000</u> <u>training</u></p> <p><u>US\$ 330,000 training</u></p> <p><u>Training US\$</u> <u>100,000</u></p>
<p><b>Output 2:</b> <i>The number of primary teachers with the requisite qualifications is increased through their achieving required</i></p>	<p>1. A number (to be determined by each province/ totalling approximately 2000) of <i>dai ke</i> teachers, at least 50% of whom are women, (mainly in the more rural areas</p>	<p><u>Needs analyses/baseline information</u> (output targets 1 -3)</p> <ul style="list-style-type: none"> <li>County conducts a needs analysis and selects teachers. The</li> </ul>	<p><u>Refer to output 1</u> <u>needs assessment</u></p>

<p><i>certificates/diplomas. In particular, dai ke teachers as well as female, and minority language teachers (if any) will be targeted.</i></p>	<p>rather than in township centres) have achieved qualifications as a result of project provision.</p> <p>2. 3000 primary teachers, at least 50% of whom are women, have participated in an upgrading qualification programme to diploma level (awarded on the basis of the National Unified Examination), taught partly through distance education and ICT.</p> <p>3. The needs of female primary teachers as well as language minority and remote teachers have been taken into account in the design of the programme.</p>	<p>needs analysis will map educational levels in order to plan 'bridging' programmes.</p> <p><u>Course design (output targets 1 -3)</u></p> <ul style="list-style-type: none"> <li>• Prepare 'bridging courses' in basic education subjects for Daike and other primary teachers who need them.</li> <li>• Conduct bridging training for Daike and other primary teachers who need them. and upgrading qualification training for primary school teachers</li> <li>• Design course and develop materials, adapting parts or all of existing programmes to suit distance education delivery and orienting content to new primary school and teacher education curricula.</li> <li>• Develop a quality assurance system for the learning materials, delivery system and learner support services and identify roles of those responsible for different aspects.</li> </ul> <p><u>Monitoring, evaluation and research (output targets 1 -3)</u></p> <ul style="list-style-type: none"> <li>• Beijing Normal University to conduct a case study of the programme, using case study methodology and techniques used in evaluating distance education programmes.</li> </ul>	<p><u>US\$ 800,000 training ½ month international consultant, 3 month national consultant</u> <u>US\$ 26,500</u></p> <p><u>Subcontract case study 90,000</u></p>
<p><b>Output 3</b> : <i>A cadre of primary backbone teachers and school heads able to lead and support curriculum reform and professional development in schools is developed.</i></p>	<p>1. All backbone primary teachers in project counties have completed an 80 hour programme of training in curriculum development and reform. Upon successful completion of this programme, a certificate is awarded. backbone primary teachers</p>	<p><u>Needs Analysis</u></p> <ul style="list-style-type: none"> <li>• Conduct a needs assessment of primary headteachers in project counties. (output target 1)</li> </ul>	<p><u>Needs analysis see output 1.</u></p>

	<p>leave programme with an “action plan” for implementing what they have learned in the classroom.</p> <p>2. All primary headteachers have participated in a 2-day workshop with backbone primary teachers on the headteachers’ role in schools and support for the work of the backbone primary teachers.</p> <p>3. Backbone primary teachers and headteachers develop joint action plans for implementing reform in each school, and implement them.</p> <p>4. Channels of communication between backbone primary teachers are established (through newsletters, regional meetings, website) and meetings at intervals have been organised (number of meetings to depend on local circumstances and budgets). The function of these meetings and communication is to share progress and frustrations as backbone primary teachers fulfil their action plans and implement curriculum reform in their schools.</p> <p>5. All primary headteachers have participated in the training courses provided and completed them satisfactorily.</p> <p>6. Materials for primary headteachers have been developed, piloted and distributed and are available in CD-ROM form or on the</p>	<p><u>Course design</u></p> <ul style="list-style-type: none"> <li>Plan a training programme for backbone and head teachers with the county and university carrying out school-based follow-up. (output targets 1 &amp; 2)</li> </ul> <p><u>Trainer/Materials Developer training</u></p> <ul style="list-style-type: none"> <li>Organise visits for primary backbone and head teachers to other counties and provinces. (output target 3)</li> <li>Counties and university organise introductory two-day workshop for backbone primary teachers and headteachers. (output target 2)</li> <li>Develop and conduct a training programme for primary headteachers and backbone primary teachers to take place out of school in vacation time, including follow-up activities in schools (county and university trainers to carry out the follow up). (output targets 4 &amp; 5)</li> <li>Develop and conduct training programmes for heads and teachers in schools using ethnic minority languages</li> <li>Twinning arrangements will be made with schools in more advanced areas of China. (output target 3)</li> </ul> <p><u>Resource Centre Schools</u></p> <ul style="list-style-type: none"> <li>Communication systems established. (output target 5)</li> </ul> <p><u>Monitoring, evaluation and research</u> (output target 6)</p> <ul style="list-style-type: none"> <li>University and county to organise action research projects with primary backbone and head teachers.</li> </ul>	<p><u>1 month international consultant 3 month national consultants</u> US\$ 34,000</p> <p>US\$ 300,000 <u>exchange visits</u> US\$ 450, 000 <u>backbone teacher training;</u></p> <p>US\$ 355,000 <u>headteacher training</u></p> <p><u>Refer output 1</u></p> <p><u>Refer to output 1</u></p> <p><u>Subcontract US\$ 90,000</u></p>
--	---	---	---

	<p>project website. Materials to include case studies (a form of training found particularly valuable in other countries for training headteachers in their management role).</p> <p>7. Programme is evaluated, focusing on changes in leadership style, and extent of focused and managed curriculum and professional development activities in schools.</p>	<ul style="list-style-type: none"> <li>• Conduct post evaluation of primary headteachers and backbone teachers</li> </ul>	
<p><b>Output 4:</b> <i>The capacity of teacher trainers is strengthened, particularly in the design and use of ICT and distance education for primary teacher education at the levels of normal university, county and school.</i></p>	<ol style="list-style-type: none"> <li>1. 200 county-level primary teacher trainers, at least 50% of whom are women, have participated in a gender-aware training programme.</li> <li>2. An appropriate programme provided by the Normal University will build skills in the design of primary teacher training programmes, using the full breadth of ICT (digital, print, radio and other media) as well as a gender lens in instructional design.</li> <li>3. Materials are developed and distributed. A network of primary teacher educators is created (using a web-site as one option) through project-based learning in which teachers collaborate.</li> <li>4. A well-functioning primary teacher education delivery system is used</li> </ol>	<p><u>Needs analyses/baseline information</u> (output targets 1 - 8)</p> <ul style="list-style-type: none"> <li>• Conduct a needs assessment and analyse training role of primary teacher trainers at county level.</li> <li>• Conduct research on number of women and men within teaching and training corps. Baseline data on gender will impact on course design and implementation.</li> </ul> <p><u>Course design</u></p> <ul style="list-style-type: none"> <li>• Normal universities to develop and implement well-designed training systems, appropriate for the target group of primary trainers using new approaches to adult learning in order to provide efficient training courses to teachers. (output target 2)</li> </ul> <p><u>Trainers/materials developer training</u></p> <ul style="list-style-type: none"> <li>• Identify experienced materials developers and trainers from previous projects and provide training for these. (output target 1)</li> <li>• Conduct training programme for provincial and county level trainers and administrators at the Normal University using the</li> </ul>	<p><u>Refer to Output 1 needs assessment</u></p> <p><u>US\$ 517,000 equipment, 3 month international consultant &amp; 12 month national consultant US\$ 120,000, US\$ 200,000 study tour, US\$ 45,000 workshop</u></p> <p><u>US\$ 30,000 material development training</u></p>

	<p>appropriately. The design of the delivery system reflects input from the teacher trainers themselves.</p> <p>5. Courses and materials of good quality are available (quality judged in terms of indicators set as a standard).</p> <p>6. Personnel are trained and competent in the use of the system and media.</p> <p>7. Evaluations of courses take place on a routine basis and are available.</p> <p>8. The results of primary teachers' project-based learning are available for other teachers to study and reflect on. A conference may be held in which teachers can share insights and ideas based on their professional development courses.</p>	<p>teaching systems and technologies, for promoting active learning in relation to materials and media used, and set up networks for continued contact, sharing and development. (output targets 3, 4 &amp; 5)</p> <ul style="list-style-type: none"> <li>• Train trainers and primary backbone teachers on teaching study skills and management of learning. (output target 4)</li> <li>• Provide computer training for trainers. (output target 6)</li> <li>• As part of the training programme, organise visits to teacher training schools in other provinces to see models of good practice. (output target 8)</li> <li>• Develop self review activities for primary teachers, observation schedules and other tools for trainers to measure change in teaching practices. (output target 7)</li> </ul> <p><u>Materials development</u></p> <ul style="list-style-type: none"> <li>• Prepare trainer training materials, making use of materials developed in workshops with teacher trainers and basing the materials and training on principles of adult learning and active learning. Include training in ICT and Educational Technology, and on action research. (output targets 3 &amp; 5)</li> </ul> <p><u>Monitoring, evaluation and research</u></p> <ul style="list-style-type: none"> <li>• Organise and resource adequate technical support and maintenance at different levels to ensure that the systems or technologies function effectively and reliably. (output target 4)</li> <li>• Establish monitoring systems to check functioning and alert managers and technical support staff to problems. (output target 7)</li> </ul>	<p><u>US\$ 340,000</u> <u>Training of teacher trainers</u></p> <p><u>US\$ 150,000</u> <u>Exchange visits</u></p> <p><u>1 month international consultant, 6 month national consultant</u> <u>US\$ 52,000</u></p> <p><u>1 month international consultant, 1 month national consultant</u> <u>US\$ 22,000;</u></p> <p><u>US\$ 150,000</u> <u>technical support subcontract</u></p>
--	--	---	---

<p><b>Output 5:</b> <i>Access to learning opportunities and materials is increased for all primary teachers and networks of professional development and resource centres at township central primary schools are established. Primary teachers working in remote areas are provided with assistance in accessing the resource centres.</i></p>	<ol style="list-style-type: none"> <li>1. A wide range of materials is available for primary teachers at township central primary schools and when teachers attend workshops at county level. A minimum of 25 booklets are available on the seven main subject disciplines, the new curriculum, teaching methods and more materials are available using other media. Materials are posted on websites and available in CD-ROM form. Teachers and teacher trainers are able to access the facilities, materials and services provided. Teacher trainers are able to access web-sites which give information, provide discussion groups and store resources for downloading. (TO COME: Additional strategies for supporting teachers in remote areas are identified and implemented, including possibly assistance with transportation).</li> <li>2. Township central primary schools have primary teachers' resource centres which contain materials and equipment and have a co-ordinator in charge (backbone teacher).</li> <li>3. Meetings and training workshops have been conducted, based on the materials available.</li> <li>4. A significant proportion of primary teachers attending the centre are women and from remote areas and poor communities. A travel assistance scheme is in place to facilitate access and involvement of primary teachers from remote areas.</li> </ol>	<p><u>Materials development</u></p> <ul style="list-style-type: none"> <li>• Establish quality standards and procedures for materials development and products. (output targets 1 &amp; 2)</li> <li>• Collect existing resources developed in other projects for headteacher and other training and assess their usefulness. Develop new materials and create a permanent resource in different forms (print, CD-ROM and web-site). (output targets 1 &amp; 2)</li> <li>• Develop primary teacher education websites and discussion fora within each province and a special project website. (output targets 1, 2 &amp; 3)</li> <li>• Design and develop materials which meet a variety of needs, have explicit focus on practical teaching and contain appropriate activities for primary teachers to carry out in schools. (output targets 1 &amp; 2)</li> <li>• Create a guide to using low cost learning aids. (output target 4)</li> <li>• Develop practical guide on study skills and self-management of learning . (output target 1)</li> <li>• Develop support materials and revise these after one year to include examples from the experience of backbone primary teachers. (output target 1)</li> </ul>	<p><u>1 month international consultant 4 months national consultants US\$ 34,000 and US\$ 30,000 documentation.</u>  <u>2 month international consultant, 12 months national consultants US\$ 104,000</u></p> <p><u>US\$ 60,000 subcontract</u></p> <p><u>24 months national consultants, 2 months international consultant US\$ 176,000</u>  <u>2 month international consultant 6 months national consultants US\$ 68,000</u>  <u>1 month international and 3 month national consultants US\$ 34,000</u></p>
---	--	---	--

		<p><u>Trainer/materials developer training</u></p> <ul style="list-style-type: none"> <li>• Meeting and training workshops (output target 3)</li> <li>• Provide training for materials designers (all media) with international technical assistance. (output targets 1 &amp; 2)</li> <li>• Provide training for teams involved in materials creation. (output target 3)</li> </ul>	<p><u>US\$ 330,000 training and meetings</u></p> <p><u>Mat.Dev. Training US\$ 30,000.</u> <u>international study tour US\$ 80,000</u></p>
--	--	---	---

<p><b>Output 6:</b> <i>Cost recovery mechanisms of distance learning services for primary teacher education piloted involving innovative partnerships with the private-public partnership (PPP) and Non-Governmental Organisations (NGOs)/Civil Society Organisations (CSOs).</i></p>	<ol style="list-style-type: none"> <li>1. At least one public/private partnership model agreed and implemented with an organization holding a track record of success in this area.</li> <li>2. At least one model teacher-training institution established in each province which is generating income towards cost recovery through outreach services to the community.</li> <li>3. <del>One partnership programme with a national CSO designed and implemented extending the outreach of the project activity.</del></li> <li>4. Project experience in cost recovery outreach activity is monitored, evaluated and lessons disseminated both within the project provinces and nationally</li> </ol>	<p><u>Monitoring, evaluation and research</u></p> <ul style="list-style-type: none"> <li>• Pilot innovative, self-sustainable cost recovery mechanisms for ICT connected training institutions through providing community access on a fee for service basis. Services will be managed by separate private sector/CSO entity. (output targets 1, 2 &amp; 3)</li> <li>• Cost -recovery mechanism will utilise relevant experience from successful models in China and elsewhere. (output targets 1, 2 &amp; 3)</li> <li>• Cost recovery mechaisms are monitored, closely documented, and lessons disseminated nationally (output target 4)</li> </ul>	<p>Subcontract 75,000</p> <p>Subcontract 60,000</p>
<p><b>Output 7:</b> <i>Experience and materials from the project are shared beyond the project and evidence-based policy recommendations on the use of ICT and distance mechanisms for primary teacher education, with special reference to poor rural</i></p>	<ol style="list-style-type: none"> <li>1. Ongoing information from project monitoring and formative evaluation activities, including the baseline study and stakeholder analysis, is produced in various forms (print, video, CD-ROM and web-sites) and widely distributed.</li> <li>2. Dissemination activities have taken place in the form of publications, media and</li> </ol>	<p><u>Trainer/Materials Developer Training</u></p> <ul style="list-style-type: none"> <li>• Training in evaluation methodology, planning, analysis and report writing and presentation of findings for use by policy makers, will be organised for the Normal Universities in a joint workshop (all three provinces) with technical assistance. (output target 1)</li> </ul> <p><u>Monitoring, evaluation and research</u></p>	<p><u>Evaluation Training</u> <u>US\$ 25,000</u></p>

Deleted: sector and CSOs.

<p><i>areas, are produced and disseminated nationally.</i></p>	<p>conferences.</p> <p>3. Evaluation, research and policy studies have been conducted.</p> <p>4. The evaluation studies and analyses of experience have been rigorously conducted and reach sound conclusions and recommendations as a result. They are presented in a clear and understandable way to enable non-specialists to understand them.</p> <p>5. Evidence based policy recommendation papers, linked to national strategies in Teacher training reform and the development of ICT provision for poor regions, are presented to provincial and national authorities.</p> <p>6. Replication of project models is initiated in other parts of China during the project lifetime.</p>	<ul style="list-style-type: none"> <li>• Establish provincial level data bases and MIS (Management Information System) on primary teachers, programmes, completion rates and activities with common data sets for all three provinces, for monitoring, management and evaluation purposes. (output targets 1, 3 &amp; 4)</li> <li>• Organise national conference (Core Group to facilitate) and seminars. (output target 2)</li> <li>• Publish research and evaluation reports and project newsletters. Update MOE website with project information. (output target 2)</li> <li>• Publish practical training guides for primary teachers and teacher trainers within and beyond the project. (output targets 2 &amp; 4)</li> <li>• Plan monitoring, formative and summative evaluation activities (on delivery system, materials quality, learner support, learning outcomes, technology uses and effectiveness, training for trainers, costs of course and materials provision (per teacher). Identify the evaluation aspects of most relevance to policy makers, and research these as part of the overall evaluation plan. (output target 1)</li> <li>• Evaluate the effectiveness of the provision for teacher education, continuing professional development programmes and certification programmes. Research, policy study and recommendation. (output targets 3 &amp; 4)</li> <li>• Successful project experience is replicated in up to 20,000 schools in 130 counties of the national distance education project for poverty alleviation. (output targets 5 &amp; 6)</li> </ul>	<p><u>Subcontract US\$ 75,000</u></p> <p><u>Inception workshop, Interprovincial and national conferences US\$ 170,000</u></p> <p><u>Documentation dissemination US\$ 80,000</u> <u>2 months national consultants US\$ 12,000</u></p> <p><u>Refer to needs assessment (output 1)</u></p> <p><u>Evaluation US\$ 70,000; Mission Cost US\$ 63,000</u></p> <p><u>Refer to interprovincial and national conferences</u></p>
--	--	---	--

### **3.4. TECHNICAL INPUTS**

Most of the activities for this project will be led and implemented within the project provinces and counties. The management system is given in the next section, which will include an International technical adviser, appointed by CICETE with the agreement of UNDP and DFID, to act as overall co-ordinator of national and international technical assistance. This will help ensure consistency in the provision of technical assistance. National and international consultants will be needed for developmental and training work in the following areas:

- Designing protocols for collecting baseline information from schools and teachers in the target counties and provinces.
- Leading in participatory planning exercises with target teacher in each project province
- Contributing to course design work
- Leading training courses for teacher trainers and materials developers
- Contributing to the development of the Resource Centre schools
- Designing, undertaking and managing monitoring, evaluation and research activities

Further details of this work are given in Annex 2 consultants ToRs.

### **3.5. PROJECT PHASING**

The project phasing will be worked out in detail during the inception phase. However, the project can be seen as having three broad phases.

- Inception phase: this will be extremely important for gathering both detailed baseline information from the project counties, but also for ensuring full beneficiary participatory planning of the project during the course of identifying target teacher needs(months 1- 6).
- Training design, trainer training and materials development phase. In the light of the results of the inception phase, this will be the period when the system, human and material resources for full implementation are put in place (months 3-18).Implementation and monitoring phase. This will be the full implementation of the project (months 12 – 60).

The three phases mentioned above will not be as clear cut as given above. Some training will take place in the inception phase, and will continue throughout the implementation, monitoring, research and evaluation will be ongoing throughout the process.

## 4. PROJECT MANAGEMENT AND COORDINATION

### A. EXECUTION, IMPLEMENTATION AND COORDINATION

#### *National level execution and implementation*

The national level management and co-ordination structure is given in Table 5. The China International Centre for Economic and Technical Exchanges (CICETE) under the Ministry of Foreign Trade and Cooperation will be the **executing agency** of the project and will be entrusted with the day to day management of project execution. As the traditional government counterpart of UNDP in China, CICETE is familiar with UNDP procedures for national execution and will be responsible for an efficient accountable and transparent use of DFID/ UNDP resources under the project.

The Ministry of Education (MoE) will act as the **implementing agency** of the project. A **National Project Director** (NPA) will be appointed by MoE to be the leader of a Core Group (MoE, Department for International Co-operation and Exchanges) and take a co-ordinating role. The NPD within the Core Group will be responsible for overall project implementation, facilitating and co-ordinating common activities across the three provinces, supporting training, disseminating information, organising cross-province events and activities, and bringing provincial experience to the Ministry of Education for policy consideration. The NPD may appoint a National Project Manager in the Core Group and, as and if required, project managers at the provincial level for project coordination and management. MoE will bring to bear on the project the experience of teacher education in other parts of China and facilitate visits and partnerships between teacher education institutions. It will also play a role in disseminating experience of the project through its usual channels of communication with all teachers in China (through newsletters etc) and in co-ordinating national conferences in which project provinces will play a role.

**United Nations Development Programme (UNDP)** is signatory to this project and will be accountable the overall achievement of project outcomes/ results and the use of project resources as well as for ensuring compliance with UNDP policies on use of project funds. UNDP will ensure the introduction of the most suitable international practices on the subject of this project. Finally UNDP will help in arranging and will monitor the project's intended results and its evaluation. (The combined fee to be charged by UNDP and CICETE for management services to be provided will be 5% of the DFID cost sharing contribution to the project.)

**The UK Department for International Development (DFID)** is a signatory to this project and will be responsible for making DFID resources available under the agreed budget items. Details of the cooperation, coordination and reporting structures between DFID and UNDP under the project are to be spelled out in a Third-party Cost-sharing Arrangement between DFID and UNDP to be annexed to the project document.

At national level, a project **Advisory Committee** will be established with representation of DFID, UNDP, CICETE, MOFTEC, MOII , MOST and MoE (the International Co-operation and Exchanges) will meet twice a year to monitor progress according to reports received via MoE and to advise on direction [particularly for the development of cost-recovery mechanisms of distance learning services for primary school teachers in the nine selected poor project counties.](#)

The advisory committee will have the authority to amend programme activities as appropriate in the light of project experience. The representatives of each of the partners in this project will also use all their mechanisms to ensure that project results and lessons are disseminated as widely as possible within China and beyond. An internal MOE committee will be responsible for the project in the provinces and will liaise with provinces, co-ordinate project activities with other or related similar initiatives, collaborate with other appropriate departments (such as NCET or the Department of Science) and co-opt specialist members as and when required.

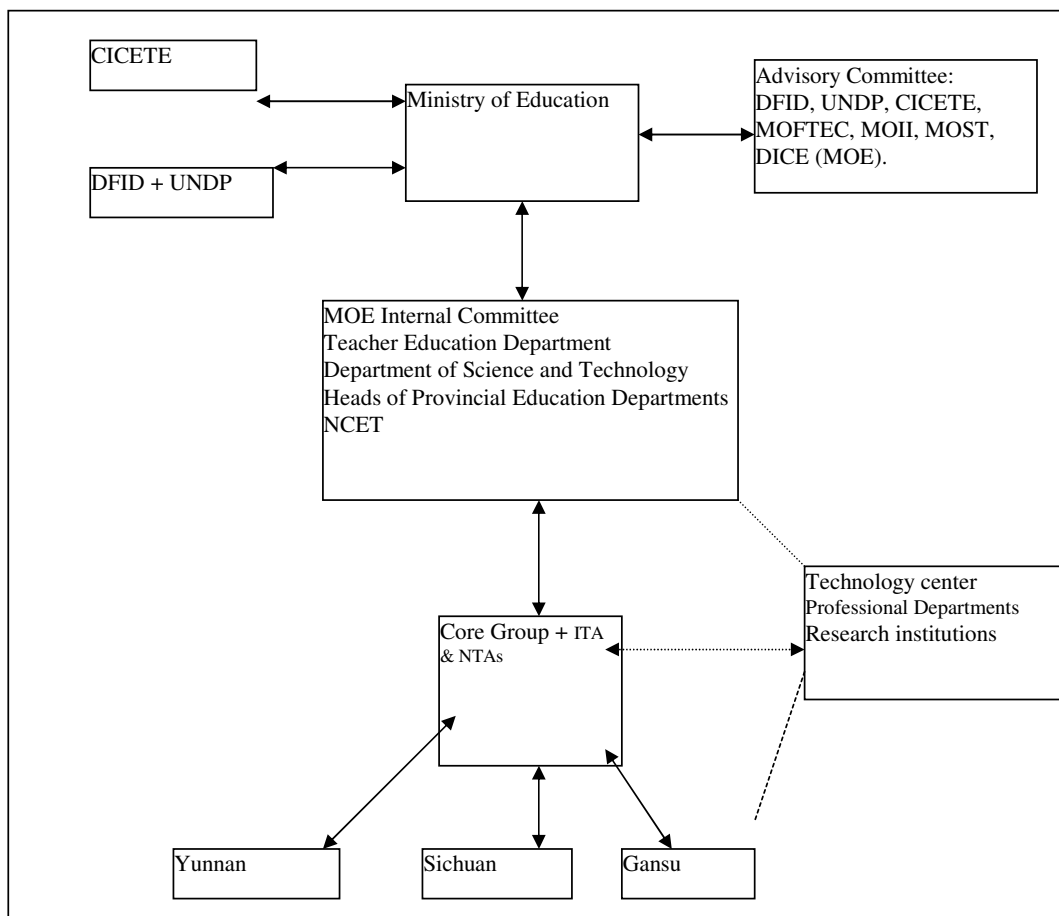
The project will recruit an **International Technical Advisor (ITA)** and **two National Technical Advisors (NTAs)** who will be responsible for providing overall strategic advice and support to the Programme to ensure that it is implemented efficiently and completely and will be reporting to CICETE. Please see TORs in Annex 2.

In addition the project will recruit a team of technical advisors comprising national and international specialists, as appropriate, during all three major phases of the project, i.e. inception, training and implementation phases, covering such areas as: development of training courses, delivery mechanisms and systems for different target groups of teachers, as well as material development and development of teaching resources and guides, and the development of built-in, continuous review and monitoring mechanisms. For detailed list of tasks of consultants during the inception phase please refer to Annex 2.

National and international trainers and consultants will also be recruited through direct contracts or sub contracts for specific requirements:

- Course development and management (ICT distance education, college part time courses, learner support systems);
- Financing and cost recovery of distance learning services;
- Training: certificate training, computer literacy, upgrading training, vocational education, material development training, training of teacher trainers, training for backbone and head teachers

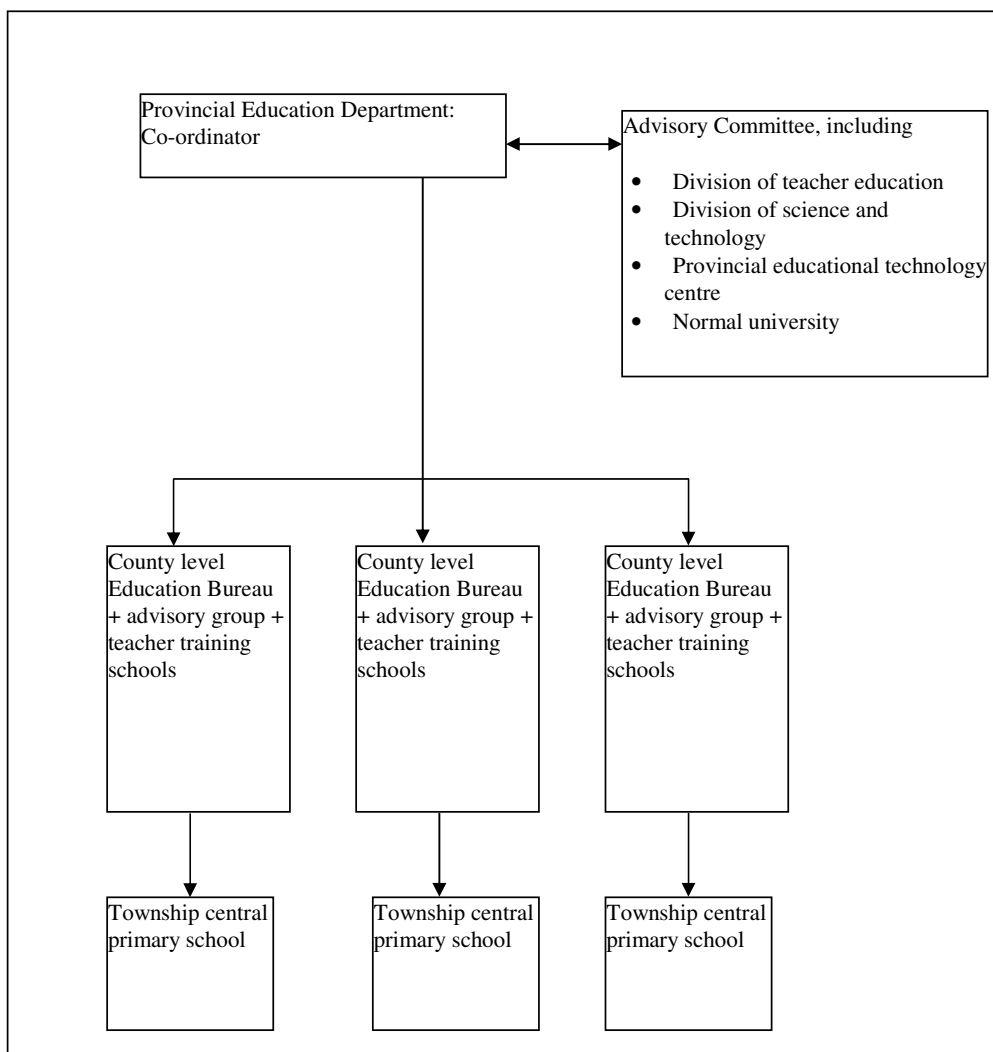
**Table 5: National level management and co-ordination structure**



***Provincial structure***

The preliminary organisational structure for the implementation of the project at provincial level as illustrated in Table 6 aims to fit with existing administrative structures for teacher education and teacher management rather than setting up separate project structures. Following the inception phase, more detailed analysis of the linkages and communication flows between the different parts of the system will be needed.

**Table 6: Project organisational structure in each province**



The overall responsibility for developing good quality teacher training materials within the project rests with a co-ordinating group. This is likely to be centred at the Normal University, with responsibility delegated by the provincial Education Department. The primary role of the provincial co-ordinating group is to develop materials and organise the training system. It will plan and mobilise human and financial resources as agreed with the Education Department, organise contracts for the work, co-ordinate activities, provide training and support, oversee materials production schedules and monitor and evaluate. Key tasks for the provincial implementation group are outlined in Annex 13.

The implementation Group will need to design and manage materials production planning processes, building some quality assurance mechanisms into them. An example of materials production planning is given in Annex 11 (for print production).

## 4.2. REVIEW MONITORING AND EVALUATION

**Annual work plans and budget plans** will be prepared, providing additional details or changes. Major changes involving significant changes in the outcomes, outputs and activities of the project, if required, in any case, should have the prior approval of the UNDP, DFID and the appropriate government authorities before they may be implemented. Revisions in or addition of any of the Annexes of the project document, rearrangements of inputs already agreed to or annual revisions that reschedule the delivery of agreed inputs and take into account cost inflation and agency expenditure flexibility may be made by signature of the UNDP Resident Representative provided that the other signatories to the project document have no objections to the proposed changes.

It is of supreme importance that at the same time, when plans are made, also a proper system of **monitoring and evaluation (M&E) of project activities** is set up in order to measure the progress of the project and conduct countermeasures if problems occur. Regular, substantial monitoring visits should be undertaken to look at progress towards results, the production of outputs, partnerships as well as key challenges and proposed actions.

In line with DFID requirements the project shall prepare half yearly financial reports. The National Project Director, under the support of UNDP/CICETE shall prepare and submit an Annual Project Report (APR) by early December. The APR must cover the essential elements, namely progress towards the project purpose, achievement of outcomes, outputs produced from associated activities and relevant efforts on partnerships, coordination and dissemination of lessons learned. A project terminal report will be prepared for consideration at the project's final meeting. In addition, the project will also submit study tour, exchanges and training reports prepared by the participants concerned.

The project shall be subject to a mid-term review by independent consultants sometime during the third year of operation. The review will assess implementation of the project, identify problems and propose any necessary adjustments in scope, direction, objectives or outputs to achieve the project, [especially analyzing the pilot initiatives of cost-recovery mechanisms of distance learning services for primary teacher education and how the overall costs for poor provinces might be reduced](#). Finally, the project will be considered as a candidate for an outcome evaluation towards the end of its implementation as part of a larger evaluation dealing with issues of ICT for development in China to assess this project's overall performance, the outputs/outcomes produced against its initial targets (goal and purpose), the impact it has brought about, its relevance to the national development context and management efficiency.

## **5. LEGAL CONTEXT**

This document shall be the instrument referred to as such in Article 1 of the Standard Basic Agreement between the Government of the People's Republic of China and the United Nations Development Programme, signed by the parties on 29 June 1979. The host county executing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.

The Project will be subject to audit according to UNDP rules.

## 6. PROJECT FINANCING AND BUDGET

The total project budget of US\$ 9.4 million will be cost shared by UNDP (US\$ 1.2 million), Department for International Development (DFID) United Kingdom (US\$ 5.2 million) and Government of the People's Republic of China (US\$ 3 million). In addition, the total in-kind contribution by the Chinese government in the project period is US\$6.5 million.

### (1) UNDP Input

UNDP will contribute US\$ 1.2 million to cover the costs for project formulation, international and national consultants and resource persons; support technical services and sub contracts, training activities, study tours, symposiums and workshops; Monitoring and evaluation; documentation and dissemination; material and equipment to a limited degree.

### (2) DFID Input

DFID will provide US\$ 5.2 million out of which five percent<sup>5</sup> will be set aside to cover administrative costs. The DFID contribution will cover costs for international and national consultants and resource persons; support to technical services and sub contracts, training activities, study tours, symposiums and workshops; monitoring and evaluation, documentation and dissemination; material and equipment to a limited degree.

### (3) Chinese government cost sharing contribution

The Chinese government cost sharing contribution of US\$ 3 million in cash will be transferred to the UNDP project account and will cover US\$ 1.7 million for training including overseas study tours and national exchange visits as well as US\$ 1,3 million for equipment including IT equipment for town and community center primary schools and provincial normal universities and project vehicles. The cost sharing contribution is expected to largely be provided by provincial governments of the participating pilot provinces.

### (4) Chinese government contribution in kind

In addition to cash inputs, the Chinese government, through the provincial governments, will provide in-kind contributions to the project, and to the system that the project establishes. This will include national and local management, research and implementation staff, basic infrastructure for the project sites, costs for maintenance, upgrading and replacement of ICT equipment, and reallocation of recurrent funding for teacher training to maintain and develop the teacher training system established through the project. The project will also combine resources of other relevant projects funded by the Chinese government. It is estimated that the total in-kind input by the Chinese government in the project period will amount to US\$6.5 million.

#### Deleted:

#### <#>Chinese government cost sharing contribution

The Chinese government cost sharing contribution of US\$ 3 million in cash will be transferred to the UNDP project account and will cover US\$ 1.7 million for training including overseas study tours and national exchange visits as well as US\$ 1,3 million for equipment including IT equipment for town and community center schools and provincial normal universities and project vehicles. The cost sharing contribution is expected to largely be provided by provincial governments of the participating pilot provinces. In addition to cash inputs, the Chinese government, through the provincial governments, will provide in-kind contributions to the project, and to the system that the project establishes. This will include costs for maintenance, upgrading and replacement of ICT equipment, and reallocation of recurrent funding for teacher training to maintain and develop the teacher training system established through the project.

Formatted: Bullets and Numbering

Formatted: Bullets and Numbering

#### Deleted:

<sup>5</sup> Equivalent to US\$ 247,620.