

NEPAL

Basic and Primary Education Programme II

Development of a Professional Publishing Capacity for BPEP II

23 February – 14 March 1998

Carmelle Denning and David Parker

NEPAL

Basic and Primary Education Programme II

Development of a Professional Publishing Capacity for BPEP II

23 February – 14 March 1998

Carmelle Denning and David Parker

International Book Development Ltd
305-307 Chiswick High Road
London W4 4HH
tel: (00 44 181) 742 7474
fax: (00 44 181) 747 8715
e-mail: ibdLtd@compuserve.com

CONTENTS

		page
i)	Abbreviations	
1	INTRODUCTION	1
2	THE NEED FOR A PROFESSIONAL PUBLISHING CAPACITY FOR PRIMARY EDUCATION	2
	2.1 Primary Curriculum and Textbook Development Unit	
	2.2 Primary Teacher Training Unit	
	2.3 Resource Centre Development Unit	
	2.4 Non-formal Education Unit	
	2.5 Special Education Unit	
	2.6 Women's Education Unit	
	2.7 Physical Planning and School Mapping Unit	
	2.8 Conclusions	
	2.9 Role of Computers in National Textbook Publishing	
3	PROPOSAL FOR THE CREATION OF THE PRIMARY PUBLISHING CELL	8
	3.1 Overview	
	3.2 Mandate of the Primary Publishing Cell	
	3.3 Strategy for Developing the PPC and the Publishing Skills in the Units	
	3.3.1 Functions of the PPC and of the Units	
	3.3.2 Work methods of the PPC	
	3.3.3 Publishing Work of the Units	
	3.4 Organisation, Staffing and Management	
	3.4.1 Organisation and Staff	
	3.4.2 Management	
	3.5 The Role of Computers in the PPC and in the Units	
	3.5.1 Objectives of Computerisation	
	3.5.2 Primary Publishing Cell – User Community	
	3.5.3 Publishing Management System	
	3.5.4 Desktop Publishing System	
	3.5.5 Computer Hardware Allocation	
	3.5.6 Selection of Vendors	
	3.5.7 Connection of the Remote Units at Keshar Mahal to the Publishing Management System	
	3.6 Staff Selection and Training	
	3.6.1 Staff Selection	
	3.6.2 Training	
	3.6.3 Procedures manual	
	3.7 Physical Facilities and Equipment	
	3.8 Implementation Plan	
4	COSTS	26

Appendices

- 1 Terms of Reference
- 2 Mandate of the PPC
- 3 Job Descriptions of Staff in the Primary Publishing Cell and in the Units
- 4 Staff Training: Content, Technical Assistance, Costs
- 5 Technical Assistance for Monitoring and Evaluation and Computers
- 6 Physical facilities: room plans, lighting, equipment, furniture
- 7 Detailed Computer Hardware and Software Specifications and Costs
- 8 Book Progress Monitoring and Costing System: Example of part of Structure
- 9 Inventory of Existing Computer Equipment at Sano Thimi
- 10 Publishing Management System Expansion
- 11 Tendering for the Computer System and Program Writing

i) Abbreviations

BPEP II	Basic and Primary Education Project, Second Phase
BPMCS	Book Progress Monitoring and Costing System
CDC	Curriculum Development Centre
CPE	Compulsory Primary Education
CRC	Camera Ready Copy
DTP	Desktop Publishing
JEMC	Janak Education Materials Centre
LAN	Local Area Network
MOE	Ministry of Education
NFEDC	Non-Formal Education Development Centre
NFEU	Non-Formal Education Unit
PC	Personal Computer
PCTDU	Primary Curriculum and Textbook Development Unit
PCU	Primary Curriculum Unit
PPC	Primary Publishing Cell
PPSMU	Physical Planning & School Mapping Unit
PTTU	Primary Teacher Training Unit
RCDU	Resource Centre Development Unit
SEU	Special Education Unit
WEU	Women's Education Unit

INTRODUCTION

The consultancy to plan for the development of a professional publishing capacity for BPEP II was undertaken by two consultants, a publishing specialist and a specialist on computers in publishing. The publishing specialist visited Nepal from 23 February to 15 March and the computer specialist from 1 to 15 March 1998. The consultants had discussions and meetings with the Units of the BPEP which were to be included in the professional publishing capacity – the Primary Curriculum and Textbook Development Unit, Non-Formal Education Unit, Resource Centre Development Unit, Primary Teacher Training Unit, Special Education Unit, Physical Planning and School Mapping Unit and Women’s Education Unit. (The consultants were advised not to include the Distance Education Centre in its planning at this stage as it is not a BPEP unit. However, as the present report makes clear, additional Units or Departments can be added to the proposed publishing cell as required.)

Among the expected activities of BPEP II is the integration of the BPEP Units into the MOE to become departments or parts of departments. This report refers to “units” and bases its planning on the activities of the Units and their future expected activities as described in the implementation plans. Therefore future developments in BPEP II can be accommodated into the plan in this report, from changes to the names of the present units and, in time, additional contacts and liaisons between MOE departments and the primary publishing cell.

The consultants discussed the future publishing capacity and present situation with the Director, Deputy Director and officials of BPEP, and visited the CDC and its secondary textbooks publishing department for additional information and future context. Organisations and private companies related to the book and information technology sectors were also visited in order both to broaden understanding of the national context and to assess the level of services available. To this end, the consultants visited Janak Education Materials Centre, Sajha, Ratna Publishing House, Everest Paper Mills and a range of suppliers of computer hardware and services and their customers who had received computer systems (UNICEF, Staff College and Mr Praveen Baidya, consultant concerned with the EMIS). At the wrap-up meeting to discuss the consultants’ proposals the BPEP director and management were joined by Lis Garval, Counsellor from the Danish Embassy.

The Terms of Reference for the consultancy are reproduced in Appendix 1. The consultants also took as their starting point Working Paper 1, “Developing a Professional Publishing Capacity”, the Implementation Plan for BPEP II and the Master Plan for Education.

The consultants wish to express their thanks to the BPEP Director, Assistant Director, Chief Technical Adviser, Programme Adviser, Education Adviser, Unit Chief and Design Manager of the PCTDU and the BPEP Unit Chiefs.

THE NEED FOR A PROFESSIONAL PUBLISHING CAPACITY FOR PRIMARY EDUCATION

Seven BPEP units within the MOE are engaged in educational publishing: PCTDU, PTTU, RCDU, NFEU, SEU, WEU and PPSMU. Up to this point, they have been developing and producing their materials independently of each other with occasional, informal contacts, especially with the designer of the PCTDU.

2.1 Primary Curriculum and Textbook Development Unit

The PCTDU is responsible for core and optional textbooks, curricula, supplementary reading books, teacher guides and resource books, early childhood education and compulsory primary education materials, mother tongue textbooks and other printed materials. Over the last two years, the PCTDU has published about 40 different titles, even though it completed publication of the grades 1-5 compulsory curriculum textbooks in fiscal year 1995-6. Revisions for these books (curriculum, textbook, teacher guide) have not yet been scheduled. Since the grade 1 books were published in fiscal year 1991-2, they are now six years old and it would be reasonable to begin the cycle of revision starting in fiscal year 1998-9. Meanwhile, the mother tongue publishing programme continues with language primers for Limbu, Maithili, Bhojpuri and Awadhi on-going, which will probably be followed by social studies primers in the four mother tongues.

The Unit has a book on publishing guidelines and house style. But staff have received little publisher training.

Some materials are written by the Unit specialists, but in their own time. Others are written by external authors. To identify external authors, sometimes advertisements are put in national newspapers and sometimes professional associations (eg, for a mother tongue) make recommendations. External writers receive a writing brief, but it does not specify the number of illustrations.

The process of production is that the handwritten manuscript goes to the subject specialist who reads it and lightly edits it. It is then passed to the designer for him to get it inputted in to the computer. He also checks it for illustrations, does picture research and uses his illustration folios (a small library of original illustrations suitable for primary school books) and plans the design and layout. The typescript goes to the subject specialist who edits the manuscript in collaboration with the writer or groups of writers. The subject specialist may get an outside editor to work on the typescript if the subject is not his.

Once the manuscript has been edited for content, it is edited for language. There is no language editor in the PCTDU and the manuscript is therefore given to an external editor for language editing.

Writers suggest some illustrations, but usually too few. Freelance illustrators do the drawings – photographs tend not to be used because of the poor quality of reproduction which results from the poor quality of text paper used by JEMC. The designer and PCTDU subject specialist discuss the number and subject of illustrations.

The PCTDU produces CRC which is given to JEMC for mass-produced pupils' textbooks. For all other materials, including teacher guides, supplementary reading books and experimental textbooks, PCTDU contracts private printers and is able to give the production specifications.

Pilot editions of the future book are produced and tested twice. During the second trial readers' reports are obtained from school heads and subject experts. When the book has been trialled twice, it is mass-produced for the whole country and JEMC does the printing.

PCTDU has no long-term publishing programme and nor do the other Units. The Units work on draft programmes in January of each year. For the initial planning, the PCTDU staff put together a budget of activities which is then reviewed by the Unit Chief. It goes to BPEP to see if there are sufficient resources and is returned to the PCTDU with BPEP comments and changes. BPEP then sends it to the programme and planning division of the MOE to ensure that the proposed activities conform to the policy of the MOE. It then goes to the MOE for consideration and then to the Planning Commission and Ministry of Finance.

2.2 Primary Teacher Training Unit

The level of publishing of the PTTU over the last two fiscal years has been about ten titles per year and this is likely to continue into the future. Most of the titles are books which were the medium adopted in preference to leaflets which tended to get lost. The Unit staff (nine members and one Unit Chief) do most of the manuscript writing, with occasional use of outside writers. Each member of staff co-ordinates a project or sub-project. Field work precedes manuscript development for many of the titles, with about two weeks work in each district and 11 districts to cover. The manuscript writing itself takes 1-3 months and all materials are in the Nepali language. The Unit has one computer operator who produces some of the CRC. For printing, UNICEF takes the CRC for some titles, and for other titles the Unit itself contracts printers. The Unit always receives cover proofs from the printer, but only occasionally running sheets and advance copies of the books. It has received some illustration and CRC services from the PCTDU.

Titles concerned with CPE, such as Curriculum Dissemination to Head Teachers in CPE Districts, will be needed in more copies as CPE spreads.

2.3 Resource Centre Development Unit

Among the RCDU's output is a large number of forms and certificates as well as brochures, books and newsletters. Much of the material is reprinted with few changes. While in fiscal year 1996-7, 63 titles (all kinds of materials) were published for the first time or reprinted, in fiscal year 1997-8 the total number newly published or reprinted will be 16 titles. The RCDU has been active in 40 districts so far and 12 more districts will be added in fiscal year 1998-9. About nine titles to be published this year are books.

The eight professional members of staff write the manuscripts, with ideas sometimes contributed by outside specialists who are contracted as consultants. For each writing project, all eight members of staff contribute and the section head acts as co-ordinator (there are eight sections in all). The co-ordinator can change the manuscript following group discussion and is authorised to change the manuscript to impose a common style and consistency and to verify the content. Correction of the language of the manuscript is done by an outsider, usually through the PCTDU. The printer is contracted both to produce CRC and to print the material. The RCDU does not, however, see either the cover proof or the running sheets or advance copies.

2.4 Non-formal Education Unit

The NFEU has two sections, women's education and out of school education, each with one co-ordinator and four specialists. No outside writers are used at present for any revisions which are written in a group and then criticised by consultants from the university, research and from NGOs. In each of the last two years, about 26 titles have been published. These are mainly books, with some posters, brochures, magazines and diaries. CRC is produced on a computer in the NFEU and either UNICEF or a printer contracted by the Unit then produces copies.

When the NFEU is merged into the Non-formal Education Development Centre there will be three sections: Adult and Continuing Education section will be additional to the two sections in the Unit. This section will also be producing materials for its target audience and the organisational structure chart of the NFEDC shows a section concerned with materials production and distribution.

2.5 Special Education Unit

The SEU publishes 10-15 titles each year, comprising books, periodicals, brochures, posters, calendars and some Braille editions. The Unit prepares all the materials with help from outside specialists and NGOs. The Braille materials are produced by an NGO which also distributes them for the SEU. Since the Unit is concerned with blind, deaf and mentally handicapped students, there are special design and illustration requirements. In addition, each fiscal year consists of initial writing and then implementation, with a training period from November to February so that feedback can only start to arrive in March. Some materials, apart from posters, are four-colour productions and some have been printed on good quality paper. Occasional photographs are used in the publications (unusual because of the poor paper quality used in other Units' materials).

Including the Unit Chief, there are five professionals in the Unit and they are all concerned in group writing. Outsiders are used to contribute ideas. The programme co-ordinator is responsible for authorising the final typescript which then goes to the Unit Chief for scrutiny before going for design.

The Unit contracts a printer to do both the CRC and the production. The CRC has to be revised 3-4 times before it is finalised.

2.6 Women's Education Unit

At present, the WEU publishes several posters, an annual brochure and 3-4 books and a magazine in book format. The three section officers who are specialists and sometimes the Chief of the Unit do the planning, writing and illustration briefs. The Unit gets the PCTDU to do the illustrations for the books and 4-colour illustrations for the posters; the PCTDU is cheaper for design and illustration work than private printers. The Unit gets the CRC done either by the PCTDU (better and cheaper) or by a printer who then goes on to print and bind the work. The same posters may be published in two languages, as well as in Nepali.

The WEU recently received a second-hand PC. The typist has done a three month course on computers before work, but no-one else in the Unit knows how to use them.

The Unit suffers through not having the technical knowledge and experience to work with the private printers. It needs training for writers and for editors in how to do content editing. In addition, the Unit wants training in conceptualising materials to be sure that materials being produced are relevant to the target audience, training in pre-testing and training in sampling the effects of the materials after they have been distributed.

2.7 Physical Planning and School Mapping Unit

The PPSMU has five manuals whose content was decided and written within the Unit. Design, illustrations and typesetting were done by outside consultants. The manuals are distributed to the schools in the BPEP districts, but as the BPEP spreads to all 75 districts the print runs will rise accordingly from the present 22,000 copies. However, the manuals are not revised and reprinted every year, but every 3-4 years. The Unit is well endowed in computers, a scanner, laser and colour printers. When the time comes to revise the manuals the Unit will need specialists in the subjects (e.g. site development, rehabilitation of existing schools, expansion based on the District Development Committees) to make the decisions about content and to do the writing, and other specialists to do the design and layout.

2.8 Conclusions

A professional publishing capacity is clearly badly needed by the BPEP Units, including the PCTDU notwithstanding its existing large publishing programme. The problems encountered by the Units include deciding content, group writing, content editing, number and quality of illustrations, schedules and deadlines, heavy corrections made to CRC and to revised CRC, co-ordination and scheduling of inputs, printing houses not following instructions, poor quality of text paper destroying impact of page design and illustrations. Several of the Units at present solicit help from the PCTDU where there is a designer – using the PCTDU designer was cheaper and gave more control over the material.

Although it is clear that publishing expertise is needed in all of the Units, the best way to supply it is to share responsibilities (apart from the PCTDU). The Units retain responsibility and therefore interest in their publications, while using the professional publishing capacity built on the PCTDU to provide a range of services.

A professional publishing capacity for primary education is needed on grounds of quality, efficiency and cost-effectiveness.

Quality

Improvement in the quality of the content of books, of their visual and presentational aspect and of the books as physical objects, will be facilitated through the creation of a nucleus of expertise which can be used by all the Units. On examining the publishing output, it was very clear that improvements can be made over much of the range.

Efficiency

The creation of a properly trained publishing capacity will be able to impose procedures and introduce practices to increase the efficiency of the publishing operation for primary education. The efficiency measures will concern timetables and deadlines and working within budgets, so that printed materials are not spoilt because the budget has run out.

Cost-effectiveness

Quality of materials is better and they are cheaper when trained professionals work on them. For example, the PCTDU has estimated that one page of CRC done outside BPEP, including typesetting, language editing and illustration, costs Rs 750. This price includes direct costs, profits and overheads (salaries, power, rent of premises, water, telephone, travel, depreciation of equipment, etc). Since the MoE does not have a profit requirement and the overhead is not charged to separate departments, only the direct costs will be applicable for the MoE. With the increase in control and quality of work as well, it is cost-effective to create the nucleus of publishing expertise.

The skills at present available – especially editorial skills – in the national publishing industry are not, in general, sufficiently widespread to publish books to the standard necessary for primary education. (The creation of a publishing capacity does not, of course, at all imply the creation of any printing and manufacturing capability.)

2.9 Role of Computers in National Textbook Publishing

The professional publishing capacity for primary education should be fully computerised both for desktop publishing and for publishing management. Computerisation forms a vital part of the proposed publishing capacity and provides the following benefits and opportunities:

- (i) Up-to-date progress report on all publications being handled by the publishing capacity.
- (ii) Information to provide the Units with the most efficient and effective professional service.
- (iii) Speedy information with regard to any publication which is either running late or threatens to run late.
- (iv) Information to exercise control over printers, in terms of delivery of books and other published educational materials and their related costs.
- (v) Advance warning of potential bottlenecks in the development of the publications.
- (vi) Easy-to-use schedules of forthcoming work.

- (vii) Monitoring and control of publishing costs against budgets and areas of potential overspend.
- (viii) Capabilities to produce high-quality design, illustrations and camera-ready copy
- (ix) Teamwork of all involved staff which will improve the quality and accuracy of the publication.
- (x) Automated professional service can be expanded to incorporate other Units and requirements with minimal further investment.

3 **PROPOSAL FOR THE CREATION OF THE PRIMARY PUBLISHING CELL**

3.1 **Overview**

Built on the textbook development function of the PCTDU, the new structure, the Primary Publishing Cell (PPC), will treat book work (textbooks, teacher guides, reading books, resource books, curriculum guides) as priority and will also work on posters, periodicals (eg, magazines) and, time permitting, brochures/ leaflets. It will not normally work on questionnaires, certificates, diaries, calendars, newsletters. It will provide:

- planning, scheduling and cost control
- author selection and briefing, content and language editing and proof-reading
- design and illustration, manuscript typing, desk-top publishing (DTP) typesetting, scanning and page layout, CRC
- production specifications, proofing schedules, selection of and liaison with printing house, quality control

For the future Primary Curriculum Unit of the CDC (a development out of part of the PCTDU), the PPC will perform all of the above functions. Therefore, all compulsory and optional curriculum textbooks, teacher guides, curriculum guides, supplementary reading books and posters will be developed and published by the new PPC.

For the other BPEP Units and their successor departments, the above functions will be shared, so that the Units retain responsibility for planning, selecting authors, writing and content editing manuscripts, manuscript typing, proof-reading, selecting and paying for printing. The PPC will help the Units with scheduling and cost control, language editing of the manuscripts, design and illustration, CRC, production specifications and quality control. In each Unit one or two liaison editors will be selected from existing staff and trained to edit and deal with printers.

To ensure that the new PPC and its federated units/departments are able to publish good quality work at low cost, a programme of staged training with a modest increase in PPC staff, strictly according to need, is proposed over two years. The efficient functioning of the PPC and Units will be facilitated by two computer networks, one for publishing management and the other for DTP to produce CRC. During the fiscal year 2000-2001 the PPC, its activities and co-operation with the Units and the Units' publishing activities will be evaluated and the position of the PPC in the MoE finalised.

3.2 **Mandate of the Primary Publishing Cell**

Because of the variety of printed materials produced by the PCTDU and the six other Units of the BPEP and their deadlines, the professional publishing capacity will have to limit the type of material on which it works. The limitation will be based on a division of printed materials into those which need a major input of publishing skills and those which do not. Therefore, the PPC will work on the following materials:

- Textbooks, teacher guides, reading books, resource books, curriculum guides
- Posters and magazines
- Brochures and leaflets requiring design and illustration.

The PPC will not normally work on the other types of printed materials produced by the Units. These materials are generally fairly straightforward, typed documents which the Units themselves, with the benefit of some staff training, will be able to produce to an acceptable quality and at an acceptable price. Restricting the type of materials on which the PPC will work is also beneficial in reducing bottlenecks at the PPC, in allowing the PPC to develop expertise in books, and in maintaining the responsibility of the Units for their own work flow and schedules.

The mandate of the PPC with regard to the primary school curriculum will be to provide the full range of publishing services to the printed materials defined above. It is important that the PPC is responsible for the full range of publishing activities. To restrict its role, as attempted in some countries, endangers the quality of the finished products. Therefore, for the primary curriculum books, the PPC will plan the publications, select authors and edit the manuscripts, design and illustrate materials and produce CRC, write production specifications and select printers as necessary, and control quality. (This means that certain of the functions of the future Primary Curriculum Unit of the CDC, as described on page 187 of volume 2 of the Implementation Plan, will be the responsibility of the PPC. See Appendix 2.)

The mandate of the PPC with regard to the PTTU, RCDU, NFEU, SEU, WEU and PPSMU is more restricted. For these six Units the PPC will provide planning and scheduling assistance, language editing, design and illustration, CRC and production specifications, and quality control.

3.3 Strategy for Developing the PPC and the Publishing Skills in the Units

The PPC will be formed out of the PCTDU by selecting 8 of its existing professional and support staff. The staff will be allotted to one of four sections, given job descriptions and trained. (See 3.4 for the structure of the PPC and 3.6 for the training.) The PPC will continue its present publishing work which it has been doing as the PCTDU and provide publishing services to the Units.

The Units will each select one or two liaison editors to be responsible, in addition to their existing work, for editing manuscripts for content, drawing up lists of illustrations, liaison with the PPC, and selecting and liaising with printing houses. For certain highly specialised work, such as the Braille materials of the SEU, the Unit would work closely with the PPC. Even then, it is likely that certain materials would be better done by the Unit in collaboration with its specialised partners outside the MoE, with little involvement from the PPC. Except for these cases, however, the normal procedure will be for the Units to work in collaboration with the PPC, from the planning and budgeting stage through to the quality control on finished books and other materials.

3.3.1 Functions of the PPC and of the Units

The publishing functions of the PPC and the Units are summarised in the following table:

Functions of the PPC	Functions of the Units (apart from the future PCU)
Constructing budgets for printed materials to submit to the MOE/BPEP	Constructing budgets for printed materials to submit to the MOE/BPEP <i>Books and posters in collaboration with the PPC</i>
Planning work flow, constructing schedules and deadlines	<i>Planning and scheduling in collaboration with the PPC</i>
Selecting and briefing authors	Selecting and briefing authors
Typing manuscripts	Typing manuscripts
Editing manuscripts for content and presentation, drawing up lists of illustrations Language editing Proof reading Design and illustration DTP typesetting, scanning and page layout, CRC proofs and final CRC Production specifications for the printer Proofing schedules required from the printer and approval stages	Editing manuscripts for content and presentation, drawing up lists of illustrations Proof reading
Selection of and liaison with printing houses	Selection of and liaison with printing houses
Quality control – checking printers' proofs and advance copies	

3.3.2 Work methods of the PPC

In January of each year, the PPC in collaboration with the PCU and the other Units lists and costs the books and other printed materials to be produced during the forthcoming fiscal year, starting in July. The forward plan and budget are submitted to the Publication Board for discussion before being submitted to the BPEP/MoE. Once the budget is approved, the Chief and Section Heads of the PPC together with the PCU and liaison editors of the other Units work out a schedule for the development of all the materials during the forthcoming year. Copies of the schedule and deadlines for each of the publications go to the PPC sections and relevant Units.

After the planning stage, the Publishing Manager ensures that all the details of each publication for the year are entered on to the Book Progress Monitoring and Costing System, a computer program specially written for the PPC to manage its publishing programme. Printouts from the BPMCS are given to the Publication Board before each Board meeting so that it can monitor the annual work programme. The PPC sections each have a PC so that they can consult the record and input changes. (Full details of the role and operation of computers in the PPC are given in section 3.5 below.)

The editorial section of the PPC then selects and briefs authors for primary school curriculum books. They may come from the PCU or from other sources. Wherever they come from, they are regarded as external authors who do the writing in their own time and who are paid a fee for the work. The editors liaise regularly with the writers or groups of writers and give them feedback on their manuscripts as the manuscripts are being written. When the manuscripts are completed, the design section gets the manuscripts input into the DTP system and gives print-outs of the typescript to the writers and editors. The editors edit the manuscripts for content, get the writers to make the necessary corrections and improvements and then copy edit. Editors, writers and the design section draw up a list of illustrations for each typescript. The typescript goes to the language editor to ensure that the language used is correct and that it is at an appropriate level for the intended readership.

The design section contracts and briefs freelance illustrators to do the drawings. Where photographs are to be used, the designer proposes photographs of the right technical quality to the editors. The designer draws up a page layout showing the typography and main design features and gets comments from the editors. Once the design is finalised, the designers use the DTP program to create layouts for all the pages. The designer submits proofs of the layouts to the editor who makes corrections and may submit them to the writers. When the editor is satisfied, he signs the proofs as final and they then go to the publishing manager for authorisation to be made into final CRC.

Depending upon the type of publication, the production manager draws up production specifications for the printer. (For the mass-produced compulsory subject textbooks the printer is JEMC which has control over the materials and processes used for manufacturing the books. Nevertheless, it is still useful for the production manager to write the specifications as he would do in an educational publishing house. Responsibility for the production specifications should belong to the publishing house, rather than to the printer.) The production manager also specifies the proofs that he wants to check from the printers (ozalids or blue proofs, running sheets, cover proofs, advance copies). For books other than the mass-produced compulsory curriculum textbooks, the production manager gets quotations from three printing houses and recommends to the publishing manager the printer which combines the best printing quality, price, speed and reliability. When he receives the various proofs from the printer, the production manager passes them for checking to the design and editorial sections and adds their comments to his own when returning them to the printers.

Throughout the publishing process outlined above, the production orderly is responsible for progress chasing within the PPC and for ensuring that all sections have entered their dates and revisions (or given them to him to enter) on to the BPMCS.

For the Units' publications, the PPC's work methods will be limited, since the Units themselves will be performing some of the activities.

3.3.3 Publishing Work of the Units

In January of each year, the Units draw up their work programme for the coming fiscal year, including printed documents. The PPC works with them to estimate the budget for each book or poster title. When the programme and budget are approved, the Liaison Editors of the Units collaborate with the PPC to draw up schedules and deadlines for each of their titles. This information is inputted into the BPMCS by the PPC, while all updates, actual completion dates and further details are inputted by the Liaison Editors.

The Units, assisted by the Liaison Editors, select their authors or their consultants for ideas and brief them. The co-ordinators continue to manage the development of the manuscript, as at present, and get the manuscript input into the computer, and do preliminary tidying up of the typescript before passing it to the Liaison Editor for content and copy editing and drawing up a list of illustrations.

The Liaison Editor then passes the edited typescript to the PPC where it is edited for language, designed and illustrated and proofs of the CRC are made. The PPC gives the page proofs to the Liaison Editor who passes them to the co-ordinator and writers, if required, for checking. He also checks the proofs, collates all the corrections and passes them back to the PPC. When the Unit is satisfied with the CRC proofs, the Liaison Editor signs the proof as being final and returns it to the PPC for making into final CRC. The PPC gives the final CRC, production specifications and proofing requirements to the Liaison Editor. The Liaison Editor gets printers' quotations and recommends the best in terms of quality, price, time and reliability to the Unit Chief. When the Liaison Editor receives the various stages of proof from the contracted printers, he checks them and also submits them to the PPC for examination. The PPC gives the Liaison Editor a list of comments on the proofs and advance copies which the Liaison Editor transmits to the printer.

3.4 Organisation, Staffing and Management

3.4.1 Organisation and Staff

The PPC has to have enough staff to perform on time all the work required for the primary curriculum and by the Units without creating bottlenecks and delays. But it must also be small enough to ensure that its staff is fully occupied throughout the year. The procedure for approving budgets for annual programmes of work makes it difficult for staff to be fully occupied during the period at the beginning of the fiscal year. Apart from this, however, the "federal" structure for the PPC will help to ensure that its size is appropriate for its work flow while leaving the Units with some responsibility and ownership for their own publications.

The PPC should begin with a smaller number of staff and expand after one year provided that it is performing its functions successfully. It may expand further to take on additional work from other parts of the MOE not at present included (eg, Distance Education Centre). After one year, a mid-term review of the PPC and its clients will determine any further staffing needs. The proposed organisation and staffing of the PPC are as follows for the start-up period and a probable expansion is suggested after the mid-term review.

Organisation of the PPC	Staff to be taken from the PCTDU	New staff to be recruited	Additional staff to be recruited after one year (if confirmed by the mid-term review)

PLANNING SECTION	Publishing manager (PCTDU Chief)		
EDITORIAL SECTION	2 Content editors (PCTDU specialist in social studies/ environmental science and specialist in English)	Language editor	Content editor Proofreader
DESIGN SECTION	Design manager (PCTDU designer) 3 Word processing operators (PCTDU Word processing operators)	2 Designers	
PRODUCTION SECTION	Production and network manager (PCTDU printing and distribution specialist) Schedule orderly (PCTDU orderly)		

Illustrators will be freelancers, a group of about 5 who will be regularly used (and who will be trained to use the PPC's DTP to ensure control and consistency).

The Units will select liaison editors out of existing staff for occasional work on the manuscripts and with the PPC. The following number of liaison editors will be needed for each Unit:

Unit	Number of liaison editors
PTTU	2
RCDU	2
NFEU	2
SEU	1
WEU	1
PPSMU	0*

*Insufficient number of books to justify liaison editor

As the BPEP units merge into the new MOE structures, further liaison editors will be needed. For example, when the NFEU joins the Non-formal Education Development Centre, an additional liaison editor will be needed to cover adult education, as the two existing editors will cover the women's section and the out of school section. By the time of the proposed mid-term review, additional training needs will be known for further liaison editors selected from existing staff.

3.4.2 Management

The Publishing Manager will be the chief of the PPC. In the first two years of operation, the PPC should report to the BPEDU because it will need careful monitoring and support during its infancy, access to resources, some degree of autonomy to decide its own methods of working and responsibility for delivering quality services on schedule. After about 2 years, during the fiscal year 2000-2001, when it is evaluated, its position – and role – in the MOE should be decided. If it reports to CDC, possibly merging with the secondary textbook department, its role may be restricted to working on the formal curriculum books and materials only, whereas if it reports to the DPE it can continue to provide services to all departments in the DPE as well as to the PCU of the CDC and the NFEDC.

A Publication Board, consisting of Unit chiefs and the Primary Curriculum Unit chief, will propose the annual work programme, advise and monitor the PPC. It will also authorise publication of reference and supplementary materials of the primary curriculum which at present do not have to go to the Curriculum Committee for authorisation. The Units will continue with present procedures for authorisation to publish and the Curriculum Committee will continue to authorise publication of the primary curriculum textbooks. All authorising bodies will work on final page proofs of the CRC, not on the CRC itself.

The PPC operating budget for primary curriculum book publishing and for the services of design, illustration and production of CRC for the Units will be listed in the Red Book and paid for by the annual budget. Since this budget will include the amounts formerly allocated directly to the Units for the production of CRC (including design and illustrations), this must be listed as part of the PPC budget in January of each year. Other services to the Units – budgeting, planning and scheduling, language editing, deciding production specifications and checking the quality of proofs and finished books – will be paid for under the heading of PPC overheads (general operating costs not to be allocated to any specific title) since they only involve PPC staff time and not materials.

3.5 The Role of Computers in the PPC and in the Units

There are two roles:

- managing the PPC's activities and integrating its clients and others in the book publishing chain – a publishing management system
- preparing CRC (typesetting and illustrations arranged as page layouts ready for the printer to make film and printing plates)

3.5.1 Objectives of Computerisation

- (i) To plan, schedule and control the cost of all publications
- (ii) To typeset, design, illustrate, scan, lay out pages and produce camera-ready copy for all publications
- (iii) To establish production specifications for printers and schedules and to monitor the production process

The Primary Publishing Cell has a requirement for two independent systems that cater for its professional publishing requirements:

- (i) Publishing Management System – This is comprised of a PC Local Area Network (LAN) which caters for the operational requirements of the publishing Units which are located at Sano Thimi (Primary Curriculum Unit, RCDU, NFEU, and PTTU) to which the remote Units, located at Keshar Mahal (SEU, PPSMU and WEU) are connected by telephone lines. The major part of the system is the “Book Progress Monitoring and Costing System”. The BPMCS will manage and control the publishing operation and this can be developed further to take on pilot testing, evaluation, distribution and more Units, as required.
- (ii) Desktop Publishing (DTP) System, also located at Sano Thimi, which constitutes the use of Apple Macintosh hardware and software products the use of which will produce professionally designed and illustrated publications, and which will output high-quality camera-ready copy (CRC) for sending to the selected printers.

3.5.2 Primary Publishing Cell – User Community

Please see the illustration **Primary Publishing Cell – user community**” on the next page.

The Primary Publishing Cell will comprise the following sections with initial staffing as follows:

Planning Section	Publishing Manager
Editorial Section	2 Content Editors 1 Language Editor
Design Section	Design Manager 3 Typesetters/typists 2 Designers Freelance Illustrators
Production Section	Production and network Manager/ Orderly

The following Units will use the services of the Primary Publishing Cell to develop their publications:

Located at Sano Thimi:

PCU	already covered in the PPC
NFEU	2 Liaison Editors
RCDU	2 Liaison Editors
PTTU	2 Liaison Editors

The above are in the Local Area Network.

Located at Keshar Mahal:

SEU	1 Liaison Editor
PPSMU	- Uses Existing Hardware
WEU	1 Liaison Editor

The above are not in the LAN, but are remote users. Initially, they will communicate by diskette until the required level and quality of telephone systems are in place.

3.5.3 Publishing Management System

The Publishing Management System consists of a computer network, network and system software, and a specially written program, the "Book Progress Monitoring & Costing System". This program monitors the progress of a publication from the point when it is decided to publish it through all its various stages to the point when the printed books/materials are satisfactorily printed and are ready for distribution to the districts or elsewhere.

At the outset the Publishing Manager has the responsibility for ensuring that the basic information is inputted relating to the book (e.g. Title, Grade, Edition Sequence Number, Language etc.) which makes a new and unique record for each publication. The "budget cost" of the book will be also entered at this stage. All the tasks that must be completed during the development and production of the book are already itemised in the program. Those users who are responsible for the completion of the tasks enter the "Estimated Completion Dates" for the relevant "Tasks".

During the course of the book's development and production it may be necessary to revise the date when a "Task" is to be completed, perhaps due to a delay in the development of the manuscript. In this case the user who is responsible for that 'Task' will enter a "Revised Completion Date" against that "Task". When a "Task" is completed the user who is responsible for it will enter the "Date Completed" against it. All the users of the system are able to see how the books/materials are progressing at any time, wherever they are located. As the various costs relating to the development of the book are known, they are entered into the system by the users who are responsible for them.

Very important management information relating to the books/materials being published is available to all users, and at all times. The following will be reported:

- (i) Books running late
- (ii) Tasks which must be completed before a specified date, the date being specified by the user
- (iii) Publishing bottlenecks – Those "Tasks" which always seem to run late. This prompts management to investigate the reasons why this is happening, and take corrective action
- (iv) Users whose "Tasks" are regularly running late, which cause problems to the publishing process overall
- (v) Those books/materials where the actual costs exceed the "Budget Cost"

- (vi) Those books/materials which are in the process of being published where the costs threaten to exceed the "Budget Cost".

The specification of the "Book Progress Monitoring and Costing System" has to be prepared by a computer consultant before it can be developed by a selected local supplier.

The Publishing Management System will be developed in such a way that other systems may be integrated into it, where required, in the future (e.g. Trialling and Evaluation, Book Distribution, Production Planning).

3.5.4 Desktop Publishing System

The Desktop Publishing System will stand alone in the Design Section of the Primary Publishing Cell. It will not be linked to the Publishing Management System but it will be wired up to form a "single office network".

Apple Macintosh hardware will form the platform on which the Design Section team will work, and the latest development products will be used to carry out the production of professionally designed and illustrated books and publishing materials. The highest possible quality camera-ready copy (CRC) will be produced for sending to the selected printers.

3.5.5 Computer Hardware Allocation

Almost none of the computer equipment presently being used by the Units that will form the user community of the Primary Publishing Cell is usable in the proposed new computer infrastructure. It lacks power and today's software cannot be accommodated by it. Perhaps only the Apple Macintosh Quadra 650 PC presently installed in the Design Section could be attached to the Desktop Publishing System as a spare machine which could be used in the event of a breakdown.

Appendix 9, Inventory of Existing Equipment, gives the details of the existing machines and recommendations regarding their potential use in the Primary Publishing Cell.

For the Publishing Management System, a network of PCs and printers will be used. Equipment is itemised in Appendix 7, section (a).

For the Desktop Publishing System, a network of MacIntoshes and printers will be used. Equipment is itemised in Appendix 7, section (b).

The illustration "**Primary Publishing Cell Computer Equipment Allocation**" on the next page shows where the new hardware will be installed.

3.5.6 Selection of Vendors

It is clear, from investigations made into local expertise, that separate suppliers will be required for the two systems (Publishing Management System and Desktop Publishing) and for writing the customised program for the BPMCS.

The Invitation to Tender should be conducted through Limited National Bidding which limits the invitation to a minimum of three reputable local suppliers for each of the two systems and for the customised program writing. Where the Invitation to Tender is conducted on an "Open" basis, many bids are received from organisations which are clearly unable to satisfy the requirements, resulting in a very considerable waste of valuable resources and time.

3.5.7 Connection of the Remote Units at Keshar Mahal to the Publishing Management System

When the computer system is first installed it is recommended that input is sent on disk by road from Keshar Mahal to the Primary Publishing Cell at Sano Thimi and that the necessary output is returned on disk and in the form of computer reports. This is because of the poor telephone connections and computer suppliers' lack of experience in connecting remote users by telephone.

At a later stage Keshar Mahal Units will communicate with Sano Thimi using the standard dial-up telephone system. In this case a dial-up modem (eg USR Sportster VFAST, costing DKr. 4064 – see Appendix 7, section (a) and Appendix 10, section (b)) will be required at each remote Unit and also for the file server. This is low in cost, easy to install, and effective in its use.

If ISDN2 connections were available to both the Sano Thimi and Keshar Mahal locations, then this technology should be used. It is the most practical and cost-effective means of communication. It is twice as fast as a normal dial-up telephone line and has immediate connection. In this case a budget of DKr 2903 should be made available to install an ISDN card in each PC located at Keshar Mahal and also on the file server located at Sano Thimi.

(A kilostream connection between Sano Thimi and Keshar Mahal would provide the fastest connection. However, this is very expensive and, at this stage, could not be justified. This solution requires that a "Router" be installed at both locations. If the number of Units requiring the use of the telephone communications capability and the volumes of data to be transferred over the telephone line increase considerably, then a kilostream line could be installed as an upgrade. It is expected that a kilostream line would cost approximately DKr 17,415 per year to rent.)

3.6 Staff Selection and Training

To ensure that the PPC and its federal Units co-ordinate, co-operate in their publishing work and improve the editorial, design and production quality of their books, three things are necessary: the right staff are selected to perform the work; they are given initial and staged training; they develop procedures manuals which are agreed by the PPC and by the Units.

3.6.1 Staff selection

Selecting the right staff to fill the posts both within the proposed primary publishing cell and in the Units is crucial as interest and aptitude are necessary to perform the tasks well – as is the case for any skill. Those staff who perform their present tasks well are not necessarily going to be the right staff to fill new publishing-oriented posts.

The staff of the PCTDU will be split between the primary curriculum unit (to become part of the CDC) and the proposed PPC. Those showing aptitude and interest in publishing are the Unit chief, the designer, the schedule orderly, the printing and distribution specialist, the social studies and environmental science specialist and the English language specialist. These 6 people with the 3 existing computer operators should form the basic staff of the PPC. In addition, the PPC will need to recruit 2 designers and 1 language editor.

The other Units must select 1 or 2 of their existing staff to perform the tasks of “liaison editor” in addition to their existing roles. The recommended selection method is as follows:

1. Draw up a list of the tasks of the liaison editor in a memorandum to Unit staff and invite interested staff to write to the Unit chief with a statement of their interest and details of any writing or editing experience.
2. Those submitting applications do a test where they are asked to correct and improve 4/5 sheets of typed text which contains various mistakes and whose content is not in a logical order.
3. Unit chief with the help of the PPC chief assess the applications and test results.

3.6.2 Training

The training strategy is to provide training where possible in Nepal and from local providers. This should be possible for initial computer training and for basic skills such as proof-reading, language correction and an introduction to the publishing process. Intermediate skill training will be possible through a series of in-country seminars given by foreign publishing specialists. Attachments to foreign publishing houses are recommended for the publishing manager, design manager, production manager and the content editors (intensive foreign language training will be necessary for some). A study tour to publishing units in the region is also recommended. The training should be progressive, rather than once and for all, and dependent upon reaching a standard and working enthusiastically within the PPC.

Training is needed in the following subject areas and for the following staff of the PPC and of the Units:

Subject	Staff to be trained
Authorship and group writing	Authors used by PPC and the Units
Publishing process, proofs and proofreading	All staff of PPC and the Units
Author selection, briefing and liaison	PPC editors and liaison editors
Content and copy editing	PPC editors and liaison editors
Pilot testing	PPC editors and liaison editors

Classroom/ user feedback and revised editions Word processing Desk-top publishing programmes Book design and illustration Computer-generated illustration Print costing, scheduling, paper	PPC editors and liaison editors Computer operators of PPC and the Units Designers and computer operators of PPC Designers of PPC Designers of PPC and a group of freelance illustrators Production manager and orderly of PPC and liaison editors
Publishing management and the "Book progress monitoring and costing system" (computerised Publishing Management System)	Publishing manager, Design manager of the PPC and liaison editors
Using the "Book progress monitoring and costing system"	Publishing manager, designers, editors, Production manager and orderly of the PPC and liaison editors
Computer local area network management	Production manager, orderly, Publishing manager of the PPC

Appendix 4 describes the content of all the training programmes, their duration and location, trainees, type of specialist trainer and costs.

3.6.3 Procedures manual

The PCTDU already has a general guide to publishing which was developed in 1991. A procedures manual is needed which links up the sections and responsibilities of the new PPC and its relations and collaboration with the Units. The procedures manual will also describe for the Units the process of developing and publishing materials, so that when Liaison Editors leave, there is some document to guide newcomers. Information on using computers and on the BPMCS program will be included. This work will be undertaken in the first instance by the PPC which will use extracts from this report. The Liaison Editors from each of the Units will then be asked to write up their procedures which will be added to the PPC document. The PPC will then duplicate the manual and supply all of its staff and the Units with copies.

3.7 Physical Facilities and Equipment

It is highly desirable that the PPC be physically located together since the nature of publishing work requires management and integration of multiple inputs including editorial group discussion (authors, editor, designer, production manager). A self-contained suite of rooms within the separate library building of Sano Thimi would, for example, be ideal.

If that is not available, the NFEU building could be re-designed to accommodate the PPC. The third alternative, less satisfactory, would be to take adjoining rooms on the first floor next to the meeting room at Sano Thimi. Appendix 6 gives room layouts for the PPC.

The PPC's and the Units' requirements for computers and their networking are dealt with in section 3.5 above and in Appendix 7. Basically, the design section of the PPC needs a DTP system on Macintosh computers, while all the sections of the PPC and all the Units need to be linked by PC for the publishing management system.

Other equipment and furniture needs of the PPC and lighting for the offices are listed in Appendix 6.

3.8 Implementation Plan

The following implementation plan assumes a starting date of July 1998. This can, of course, be moved forwards or backwards as necessary. For convenience, the plan divides activities into 3 categories:

- 1 Start-up, monitoring and evaluation
- 2 Training
- 3 Computers

Terms of Reference for local and foreign specialists for categories 1 and 3 are given in Appendix 5 and for category 2 (training programmes) in Appendix 4.

Date	1. Start-up, monitoring and evaluation	2. Training	3. Computers
1998			
	Inception of PPC development programme		
July	Select staff for PPC and for Units' liaison editors	Seminar 1: Introduction to the publishing process, proofs and proof-reading	
	Renovate PPC offices, buy furniture and equipment apart from computers	Workshop on the elements of the BPMCS	Specification of the BPMCS
August		Seminar 2: Author selection, briefing and liaison	Launch 3 tenders: DTP system, Publishing Management system, BPMCS program
		Attachment to foreign regional publishing house for Publishing Manager	
September		Seminar 3: Authorship and group writing	Evaluate and select tender winners
		Seminar 4: Book design and illustration	DTP system installation starts
		Attachment to Nepali publishing house for Production Manager	Publishing management system installation starts
			BPMCS program writing begins
October		Supplier training on DTP system and software	DTP system installed, tested, validated
		Supplier training on publishing management system and software	Publishing Management system installed, tested, validated
		Supplier training on publishing management system network software	
November		Seminar 5: Publishing management and the BPMCS	
		Supplier training on BPMCS program	BPMCS program written and installed
December	1 st monitoring and progress review	Seminar 6: BPMCS and its users	Live running of the BPMCS
		Attachment to foreign regional publishing house for Design Manager	

1999			
January		Seminar 7: Manuscript editing and copy preparation	
		Seminar 8: Content editing	
February		Seminar 9: Print costing, scheduling and paper	
March			
April		Foreign regional training for Production Manager, including networking	
May			
June	2 nd monitoring and mid-term review	Seminar 10: Pilot testing of manuscripts, book evaluation and feedback	
July		Attachment to foreign regional publishing house for 2 editors	Review of BPMCS, publishing management system and DTP system
August		Seminar 11: Authorship and group writing	
September		Seminar 12: Book design and illustration, advanced DTP programs	
October		Foreign study tour for Publishing Manager, 1 editor, Design Manager, Production Manager	
November			
December	3 rd monitoring and progress review		
2000			
January		Seminar 13: Manuscript editing, house style, copy preparation and revised editions	
		Seminar 14: Content editing	
February			
March			
April		Attachment to foreign regional publishing house for 1 editor	
May			
June	Evaluation of PPC and Units' publishing		

4 COSTS

For details of the following cost summary, see Appendices 4, 5, 6 and 7. The costs will be incurred over two years.

	DKr.
Training in Nepal	2,545,200
Training Attachments and Study Tour	375,200
Technical Assistance: evaluation and computer systems	911,475
Computer Systems	1,087,197
Furniture	39,300
Equipment	150,480
Total	5,108,852

The cost of adapting and renovating office premises for the PPC, installing power and telephone lines and heating and air conditioning have not been included.

5 RECOMMENDATIONS, RISKS AND ASSUMPTIONS

Recommendations

1. The new PPC should be accommodated in a suite of inter-connected offices so that the work may proceed efficiently. In addition, heating and air conditioning are essential both for the staff and for the computers and materials.
2. Selection of suppliers for the computer systems and program writing should take into account quality and service offered.
3. The power supply for the PPC should be independent of JEMC and an electricity generator is therefore recommended. Similarly, an uninterrupted power supply (UPS) is essential for the computer network and its functions.
4. The full-term evaluation of the PPC should also look to the future functioning and role of the PPC and make recommendations for any further inputs of training or equipment which may be needed, especially study tours to different regions with different national publishing infrastructures.

Assumptions

1. BPEP will select staff for the PPC and for the units' liaison editors carefully. (Staff selection procedures are given in section 3.6.1 above.) Only carefully selected staff will be trained. Selection of the right person for the job is critical and not just anyone will be able to perform the roles even with training.
2. Because of the costs and establishment of the local area network in Sano Thimi, the system should only be implemented when final decisions about the location of the Units and the PPC and their premises have been made.

Risks

1. Once staff of the PPC are trained, they may be moved into other parts of the MOE. The same goes to some extent for the liaison editors. The MOE should declare that it will maintain the PPC as a whole, including its trained staff.
2. Once staff are trained, they themselves may be offered better paid jobs by the private sector. Some commitment (a signed declaration?) is needed from those who receive the publishing training that they will not quit the MOE for a period (eg, 5 years).
3. In order to capitalise on the investment in improving the quality of and control over publications of primary education, an input into the primary school textbook printer, JEMC, is recommended in order to reduce the unit cost of production, reduce the national textbook bill (through increased durability and book life) and increase motivation to read the textbooks (thus reducing the unit cost of primary education through fewer drop-outs and repeaters). An initial 4-week consultancy is recommended to advise on binding equipment (thread sewing or burst binding?) and areas needing reformed procedures and management systems.
4. For the same reason, the paper used for primary school textbooks should be changed for a more durable paper. A preliminary discussion at Everest Paper Mills suggests that this is possible if the MOE/JEMC commits to buy 100 tonnes (much more than this is currently used). The paper cost would increase by about one third, but the manufacturing cost would not rise to the same extent because there would be a reduction in the rate of paper wastage (probably at least 20% of text paper is currently wasted).

MANDATE OF THE PPC

- 1 The PPC will provide a complete publishing service for the primary school curriculum.
- 2 It will provide a restricted publishing service for other primary education units and departments.
- 3 It will concentrate on books (textbooks, teacher guides, curriculum guides, reading books, etc) as a priority, with posters and magazines as a second priority and, time permitting, with leaflets and brochures as a third priority.
- 4 Its annual budget will include the direct costs for producing materials (CRC or buying printing services) for the primary school curriculum and for the Units. The budget will also contain an overhead allowance to pay for the services in planning and developing materials for the primary school curriculum for the Units.
- 5 With regard to the primary school curriculum it will be responsible for the following activities (extracted from p.187 of Volume 2 of the Implementation Plan):
 - Review periodically the textbooks with the involvement of teachers, parents, students, Resource Persons and administrators, and make necessary changes and improvements in them.
 - Develop instructional materials to facilitate classroom instruction covering the core and optional subjects.
 - Develop educational materials and teachers guides.
 - Invite textbook writers and specialists to prepare and develop textbooks and teachers guides in various subjects according to the guidelines provided by the Curriculum and Textbook Council.
 - Prepare supplementary readers according to need.
 - Prepare curriculum materials to facilitate instruction in mother tongue as per the language policy of the government.
 - Prepare Camera Ready Copies of curriculum, textbooks and other materials and liaise with JEMC for printing of materials.

**JOB DESCRIPTIONS OF STAFF IN THE PRIMARY PUBLISHING CELL
AND IN THE UNITS**

Publishing Manager

- Chief of PPC, responsible for ensuring that work is of high quality and completed on time.
- Responsible for publishing management, planning and budgeting and for the computerised management system, "book progress and monitoring system" .
- Responsible for drawing up the year's publishing programme and budget.
- Instructs PPC staff and supervises their work.
- Member of the Publication Board.

Content Editor

- Select and brief authors and liaise with them while writing manuscripts.
- Edit manuscripts in any subject at the primary level both for content and for good presentation of typescripts.
- Draw up lists of illustrations, along with the authors.
- Read and correct proofs, including cover proofs along with the design section.
- Update the "book progress monitoring and costing system".

Language Editor

- After manuscripts have been edited for content and presentation, edit manuscripts for correct language and correct level for the intended readership.
- Read and correct page proofs after the Content Editor.
- Edit the typescripts from the Units in collaboration with the Liaison Editors.
- Update the "book progress monitoring and costing system".

Designer

- Execute all design and illustration work, either personally or by instructing freelance illustrators.
- Do the typography and layout in association with the Content Editors for the primary curriculum textbooks, teacher guides, curriculum guides, reading books, etc.
- Do the typography and page layout for the Units' typescripts in collaboration with the Units' liaison editors.
- Do the typography and illustration and layout for covers in association with the Content Editor or Liaison Editor.
- Use the DTP programme and other software to produce CRC for both PPC books and the Units' books.
- Brief, contract, follow-up and check freelance illustrators' work (in association with Content and Liaison Editors).
- Instruct word processing operators on manuscripts to be inputted and to be corrected.
- Submit proofs of CRC to Content and Liaison Editors and correct as required.
- Update the "book progress monitoring and costing system".

Word Processing Operator

- Input manuscripts into the computer, produce print-outs and make corrections.
- Do other typing and general administrative work, as required.

Production and Network Manager

- Liaise with JEMC for printing compulsory subjects textbooks and with Sahja for their distribution.
- Draw up production specifications for the PPC's and for the Units' books and list the proofing stages.
- Get printers' quotations for experimental textbooks, optional textbooks, curriculum guides, teacher guides, reading books, etc. and make recommendations to the Publishing Manager.
- Liaise with printers, circulate their proofs and advance copies of books in the PPC, check and return them.
- Take charge of the management of the network of the publishing management system, including liaison with suppliers.
- Update the "book progress monitoring and costing system".

Schedule Orderly

- Ensure that all details of the titles for the year are available.
- Enter all title information into the "book progress monitoring and costing system" and update the entries as necessary.
- Progress chase staff of the PPC and the Liaison Editors in the Units on the basis of the due dates.
- Assist the Publishing Manager, Production and Network Manager and Design Manager as required.

Liaison Editor

- Assist the Unit Chief in January of each year to draw up the publishing programme and budget in association with the PPC.
- Work with the PPC to plan the work flow of the Unit, construct schedules and deadlines.
- Assist the PPC in entering details of all the Unit's publications on to the "book progress monitoring and costing system" and update them.
- Assist the Unit in selecting and briefing authors.
- Once the Co-ordinator has completed work on manuscripts and got them input into the computer, edit the typescripts for content, presentation and consistency.
- Liaise with the editorial and design sections of the PPC to get the Unit's manuscripts edited for language and made into CRC.
- Distribute CRC proofs to Unit staff and collate all corrections to CRC proofs.
- Get quotations from printing houses, make recommendations to the Chief and liaise with the selected printer.
- Submit all printers' proofs and advance copies to the PPC for quality control and instruct printers accordingly.

STAFF TRAINING: CONTENT, TECHNICAL ASSISTANCE, COSTS

See 3.8, Implementation plan, above.

Summary of programmes of training

2. TRAINING						
	Date and duration	Subject	Trainees and number	Training location	Type of specialist	Local/ Foreign
A	July 1998 2 weeks	Seminar 1: Introduction to the publishing process, proofs and proof-reading	All staff of PPC and of the Units About 54.	CDC	Educational publishing	L
B	July 1998 1 week	Workshop on the elements of the BPMCS	Publishing manager, editors, designers, production manager and orderly of PPC, liaison editors 17.	CDC	Computer system analyst	F
C	August 1998 2 weeks	Seminar 2: Author selection, briefing and liaison	PPC editors and liaison editors 11.	CDC	Educational commissioning editor	F
D	August 1998 4 weeks	Publishing management Attachment to foreign educational publishing house	Publishing Manager 1.	Singapore	-	F
E	September 1998 2 x 2 weeks	Seminar 3(a) and (b): Authorship and group writing. (seminar repeated.)	Authors used by the PPC and by the Units (a) about 20 (b) about 20	CDC	Educational authors	F
F	September 1998 2 weeks	Seminar 4: Book design and illustration	PPC designers 3	CDC	Educational book designer	F
G	September 1998 4 weeks	Production Attachment to Nepali publishing house	Production Manager 1.	Kathmandu	-	L

H	October 1998 4 weeks	Supplier training on DTP system and software	PPC designers and computer operators, freelance illustrators 6+5.	CDC	Macintosh DTP system and software specialist	L*
I	October 1998 1 week	Supplier training on publishing management system and software	PPC Publishing Manager, editors, designers, production manager and orderly, and liaison editors 17.	CDC	PC system and software specialist	L*
J	October 1998 2 weeks	Supplier training on publishing management system network software	PPC Production Manager, orderly, Publishing Manager 3.	CDC	PC network software specialist	L*
K	November 1998 1 week	Seminar 5: Publishing management and the BPMCS	PPC Publishing Manager, Design Manager, liaison editors 10.	CDC	Publisher/publishing manager	F
L	November 1998 1 week	Supplier training on BPMCS program	PPC Publishing Manager, editors, designers, production manager and orderly, and liaison editors 17.	CDC	PC program specialist	L*
M	December 1998 1 week	Seminar 6: BPMCS and its users	PPC Production Manager, orderly, Publishing Manager 3.	CDC	Computer system analyst	F
N	December 1998 4 weeks	Design Attachment to foreign educational publishing house	Design Manager 1.	Singapore	-	F
O	January 1999 2 weeks	Seminar 7: Content editing	PPC editors and liaison editors 11.	CDC	Educational editor	F
P	January 1999 2 weeks	Seminar 8: Manuscript editing and copy preparation	PPC editors and liaison editors 11.	CDC	Educational editor	F
Q	February 1999 2 weeks	Seminar 9: Print costing, scheduling and paper	PPC Production Manager and liaison editors 9.	CDC	Production manager	F

R	April 1999 4 weeks	Foreign regional training in print and production, including networking	Production Manager 1.	Singapore	-	F
S	June 1999 2 weeks	Seminar 10: Pilot testing of manuscripts, book evaluation and feedback	PPC editors and liaison editors 11.	CDC	Educational editor	F
T	July 1999 4 weeks	Editorial Attachment to foreign educational publishing house	PPC editors 2.	Singapore	-	F
U	August 1999 2 x 1 week	Seminar 11(a) and (b): Authorship and group writing. (seminar repeated)	Authors used by PPC and by the Units (a) about 20 (b) about 20	CDC	Educational author	F
V	September 1999 2 weeks	Seminar 12: Book design and illustration, advanced DTP programs	PPC designers, freelance illustrators 3+5.	CDC	Book designer	F
W	October 1999 2 weeks	Foreign study tour	PPC Publishing Manager, 1 editor, design manager, production manager 4.	Malaysia, Thailand	-	F
X	January 2000 1 week	Seminar 13: Content editing	PPC editors and liaison editors 11.	CDC	Educational editor	F
Y	January 2000 1 week	Seminar 14: Manuscript editing, house style, copy preparation and revised editions	PPC editors and liaison editors 11.	CDC	Educational editor	F
Z	April 2000 4 weeks	Editorial Attachment to foreign educational publishing house	PPC editor 1.	Singapore	-	F

*Training is included in the supplier contract.

Content of training programmes

A Seminar 1: Introduction to the publishing process, proofs and proof-reading

Stages of development and production of an educational book. Roles of the publishing manager, editors, designers, illustrators, production manager in the publishing house; role of the printer; different production specifications for books; proof stages and how to correct proofs.

B Workshop on the elements of the BPMCS

Constituent parts of the special program to manage the publishing activity of the PPC and of the Units. Order of activities and decisions for publishing activities.

C Seminar 2: Author selection, briefing and liaison

Planning content of books. Profile of the writer. Tests for writers. Group writing. Content of author briefings. Chapter by chapter guidance for writers. Authors' illustrations lists.

D Attachment to foreign educational publishing house for publishing management

Establishment and control of annual publishing programme. Budget and budget control. Quality control. Staff development.

E Seminar 3: Authorship and group writing

Planning content of manuscript. Synopsis and sample chapters. Group writing planning. Methodology and activities. Review and revision. Manuscript preparation.

F Seminar 4: Book design and illustration

Elements of book design. Typography and page layout. Collaboration with printing requirements. Quality of raw materials and effect on design. Styles and use of illustrations.

G Attachment to Nepali publishing house for production

Tasks of production manager in a publishing house. Liaison with printers and paper suppliers. Relations with designers and DTP section.

H Supplier training on DTP system and software

Presentation of hardware and system including printers. Training on Microsoft Word, Pagemaker and system operation. (2 weeks)

Followed by training on Photoshop and Freehand programs for designers and illustrators only. (2 weeks)

I Supplier training on publishing management system and software

Presentation of hardware and system including printers. Training on Microsoft Word and Windows.

J Supplier training on publishing management system network software

Management of the publishing management system network to understand what is in the network. Training on Windows NT and on Network Management.

K Seminar 5: Publishing management and the BPMCS

Tasks of publishing management, responsibility for planning, budgeting, control, quality monitoring, staff supervision. BPMCS as a tool to assist in tasks.

L Supplier training on BPMCS program

Using the BPMCS. Command of PPC and of the Units.

M Seminar 6: BPMCS and its users

Customer service to be given by the BPMCS to the PPC and the Units. How to provide all users with the best possible service.

N Attachment to foreign educational publishing house for design

Tasks of designer in publishing house and collaboration with editorial and production departments. Use of DTP in publishing house. Cost-effective design decisions.

O Seminar 7: Content editing

Checking typescript for factual accuracy. Logical presentation of ideas and order of teaching materials. Balance of text and illustrations, of exposition and explanation and exercise.

P Seminar 8: Manuscript editing and copy preparation

Checking typescript against manuscript. Chapters, units, headings, paragraphs, captions, preliminary pages. Consistency and clarity of writing. Common style. Rewriting. Assessing cover designs.

Q Seminar 9: Print costing, scheduling and paper

Relation of printing materials and processes to costs. Cost reduction and production specifications with special reference to paper. Constructing schedules.

R Foreign regional training in print and production, including networking

Printing technology, quality management, estimating, examples of networks and their applications.

S Seminar 10: Pilot testing of manuscripts, book evaluation and feedback

How to do micro pilot testing before publication, applying results. Feedback post-publication and using information for revised and new editions.

T Attachment to foreign educational publishing house for editorial work

Tasks of editorial department. Planning content of new books, commissioning authors, content editing, copy editing, illustration planning, caption writing.

U Seminar 11: Authorship and group writing

Planning content, synopses, sample chapters, group style, co-ordination. Assessing ideas for presenting concepts and messages. Methods of conveying messages in books and posters. Illustration ideas.

V Seminar 12: Book design and illustration, advanced DTP programs

Advanced book design and illustration techniques, collaboration with editors and production manager, cost parameters. Advanced training in Pagemaker, Photoshop and Freehand programs.

W Foreign study tour

Visit to national educational publishers, to Ministries of Education and printing houses, to compare systems and practices and to plan adoption of advantages in own context.

X Seminar 13: Content editing

Factual accuracy, clarity and consistency. Liaison with authors, author corrections.

Y Seminar 14: Manuscript editing, house style, copy preparation and revised editions

Chapters, units, headings, paragraphs. Deciding and applying house style, presentation of edited manuscript for design. Assessing page proofs and cover proofs, ozalids, running sheets and advance copies. Reducing the cost of publishing revised editions.

Z Attachment to foreign educational publishing house for editorial work

Tasks of editorial department. Planning content of new books, commissioning authors, content editing, copy editing, illustration planning, caption writing.

Summary of training specialists

Code	Specialists	Number of specialists (Local/ Foreign)	Preparation and report writing (person weeks)	Nepal training (person weeks)	Total (person weeks)	Cost (fee, travel subsistence) DKr
2						
A	Educational publishing	2 (L)	2 x ½	2 x 2	5	187,600 (fee only)
B	Computer system analyst	1(F)	-	1	1	Included in 3.A (App. 5)
C	Educational commissioning editor	1(F)	1	2	3	149,350 (112,560 23,000 13,790)
E	Education authors	2(F)	2 x ½	2 x 4	9	438,840 (337,680 46,000 55,160)
F	Educational book designer	1(F)	1	2	3	149,350 (112,560 23,000 6,895)
H	Macintosh DTP system and software specialist	1(L)	-	4	4	100,800* (fee only)
I	PC system and software specialist	1(L)	-	1	1	25,200* (fee only)
J	PC network software specialist	1(L)	-	2	2	50,400* (fee only)
K	Publisher/ publishing manager	1(F)	½	1	1½	86,175 (56,280 23,000 6,895)

L	PC program specialist	1(L)	-	1	1	25,200 (fee only)
M	Computer system analyst	1(F)	½	1	1½	(fee: 56,280 subsistence: 6,895 travel included in 3 E, App. 5)
O	Educational editor	1(F)	1	2	3	149,350 (112,560 23,000 13,790)
P	Educational editor	1(F)	1	2	3	149,350 (112,560 23,000 13,790)
Q	Production manager	1(F)	1	2	3	149,350 (112,560 23,000 13,790)
S	Educational editor	1(F)	1	2	3	149,350 (112,560 23,000 13,790)
U	Education authors	2(F)	2 x 2½	2x3	7	350,010 (262,640 46,000 41,370)
V	Book designer	1(F)	1	2	3	149,350 (112,560 23,000 13,790)
X	Educational editor	1(F)	½	1	1½	86,175 (56,280 23,000 6,895)
Y	Educational editor	1(F)	½	1	1½	86,175 (56,280 23,000 6,895)

*Cost will be included in suppliers' bids and contracts.

Total Costs (Dkr)

Fees (56 weeks-1 week's fees included elsewhere)	2,002,560
Travel (14 flights-2 flights included elsewhere)	322,000
Subsistence (32 weeks-1 week included elsewhere)	220,640
Total	2,545,200

Summary of attachments and study tour training

Code 2	Activity	Duration	Location	Cost approx. (fee, travel, subsistence) DKr
D	Publishing management Attachment to foreign educational publishing house	4 weeks	Singapore	49,400 (23,000 8,000 18,400)
G	Production Attachment to Nepali publishing house	4 weeks	Kathmandu	10,000 (fee only)
N	Design Attachment to foreign educational publishing house	4 weeks	Singapore	49,400 (23,000 8,000 18,400)
R	Foreign regional training in print and production, including networking	4 weeks	Singapore	49,400 (23,000 8,000 18,400)
T	2 Editorial Attachment to foreign educational publishing houses	4 weeks	Singapore	98,900 (23,000 8,000 18,400 x 2)
W	Foreign study tour for 4	2 weeks	Malaysia, Thailand	68,800 (no fee 8,000 9,200 x 4)
Z	Editorial Attachment to foreign educational publishing house	4 weeks	Singapore	49,900 (23,000 8,000 18,400)

Total Costs (Dkr)

Fees (28 weeks (2 weeks no cost)	148,100
Travel (10 flights)	80,000
Subsistence (32 weeks)	147,200
Total	375,200

APPENDIX 5

**TECHNICAL ASSISTANCE FOR MONITORING AND EVALUATION
AND COMPUTERS**

See 3.8, Implementation plan, above.

Summary of technical assistance

Date and duration	Task	Type of specialist	Local/foreign	Cost (fee, travel, subsistence) DKr
1. MONITORING AND EVALUATION OF PPC ACTIVITIES				
A July 1998 2 weeks + 1	Inception	Publishing specialist	F	149,350 (112,560 23,000 13,790)
B December 1998 1 week + ½	1 st monitoring + report	Publishing specialist	F	86,175 (56,280 23,004 6,895)
C June 1999 1 week + ½	Mid-term review and 2 nd monitoring + report	Publishing specialist	F	86,175 (56,280 23,004 6,895)
D December 1999 1 week + ½	3 rd monitoring + report	Publishing specialist	F	86,175 (56,280 23,004 6,895)
E July 2000 2 weeks +1	Evaluation + report	Publishing specialist	F	149,350 (112,560 23,000 13,790)
3. COMPUTERS				
A July 1998 3 weeks	Specification of the "Book progress monitoring and costing system" for management of the PCC publishing programme. Includes workshop – see Appendix 4, 2 B.	Computer system analyst	F	156,245 (112,560 23,000 20,685)
B Sept-October 1998	Supply of computer hardware and software for the Desktop Publishing System and its installation, testing and validation. Includes training – see Appendix 4, 2 H.	Computer company	L	Included in supply contract (see 3.5)
C Sept – October 1998	Supply of computer system hardware and software for the Publishing Management System and its installation, testing and validation. Includes training – see Appendix 4, 2 I and 2 J.	Computer company	L	Included in supply contract (see 3.5)
D Sept – November 1998 8 weeks	Programming and installation of the "Book progress monitoring and costing system". Includes training – see Appendix 4, 2 L.	Computer software company	L	Included in supply contract (see 3.5)
E December 1998 2 weeks	Live running of the "Book Progress monitoring and costing system". (Seminar 6 follows – see Appendix 4, 2 M)	Computer system analyst	F	111,830 (75,040 23,000 13,790)

F	July 1999 1 week + ½	Review of BPMCS, DTP system and publishing management system + ½	Computer system analyst	F	86,175 (56,280 23,000 6,895)
---	----------------------------	--	----------------------------	---	---------------------------------------

Total Costs

1	Monitoring and evaluation	
	Fees (10½ weeks)	393,960
	Travel (5 flights)	115,000
	Subsistence (7 weeks)	48,265
	Total	557,225
2	Computers	
	Fees (6½ weeks)	243,880
	Travel (3 flights)	69,000
	Subsistence (6 weeks)	41,370
	Total	354,250

Terms of reference for specialists

1A: Inception of PPC development programme

Assist in organising and briefing at launch of development programme. Finalise planning, terms of reference, schedules, etc.

1 B-E: Monitoring and evaluation

Assess and report on the progress made by the PPC and by the Units in increasing the quality of their publications, their scheduling and their cost control. Highlight problem areas and propose solutions. For mid-term review, examine staff requirements both for the PPC and for further liaison editors for the Units. For final evaluation, make recommendations on practices, organisation, management and reporting and any further staff development needed.

3 A: “Book progress monitoring and costing system” specification

Specify the processes and rules for the system. Design the database and its relationships, all screen layouts and all management reports. Define and design system security and user privileges (what the different users can/cannot view, updates and use). Run workshop for management and staff who will use the system. Present and agree the specification, brief potential or selected suppliers in every detail, and agree how the system will be programmed. Produce a detailed “Development & Implementation Plan” covering all tasks, responsibilities and deadlines.

3 B: DTP system supply

Wire premises. Supply, install, commission and implement computer hardware and network for DTP system (Appendix 7c). Supply system software products (Appendix 7c). Implement the DTP operation. Train users (Appendix 4, 2H). Provide post-installation support until users satisfied.

3 C: Publishing management system supply

Wire premises. Supply, install, commission and implement all computer hardware and networking, both local and remote (Appendix 7a). Supply system software products (Appendix 7a). Train users to use the network and its associated system software (Appendix 4, 2I and 2J). Provide post-installation support until users satisfied.

3 D: “Book progress monitoring and costing system” programming

Program the BPMCS on the basis of the specification (output of consultancy 3 A above) and of the hardware and system software (Appendix 7a and consultancy 3 C above). Supply, install and commission it. Train users to use the program (Appendix 4, 2L). Provide post-installation support until users satisfied.

3 E: Live running of the BPMCS

Check the quality, functionality and accuracy of the programming. Correct any programming errors/misinterpretations and advise the programmer(s) how to make the amendments/corrections. Prepare a comprehensive “System Testing Plan”, ensure that a “Testing Team” is appointed and briefed and that the system is fully tested. Oversee a full Systems Test and ensure that all users understand the functionality of the systems and their roles. Ensure that the security aspects of the systems are accurate and fully understood, that the systems are correctly and accurately documented, and that easy-to-use “User Guides” have been prepared. Implement the systems along with the company that has developed them and check that comprehensive back-up and support are being provided by the supplier(s).

3 F: Computer system review

Assess progress on using the DTP system, Publishing management system and the BPMCS program. Make recommendations for further hardware, software or training as necessary.

PHYSICAL FACILITIES: ROOM PLANS, LIGHTING, EQUIPMENT, FURNITURE**Lighting**

Fluorescent lighting is recommended, supplemented by desk lamps (listed in Furniture, below)

Furniture

This lists the furniture needed for the number of staff envisaged after expansion (see 3.4).

Section	Item	Cost (Rupees)
Planning	Desk	10,000
	Chair	5,000
	Desk Lamp	1,500
	Small meeting table	10,000
	6 chairs	12,000
	Filing cabinet	5,000
	Cabinet	10,000
	Shelves	7,000
	1 computer and printer trolley	4,000
Editorial	5 desks	25,000
	5 chairs	25,000
	5 desk lamps	7,500
	4 filing cabinets	20,000
	Cabinet	10,000
	Shelves	7,000
	3 Computer trolleys	12,000
	1 printer trolley	4,000
Design	3 ergonomic computer operator desks	18,000
	3 swivel chairs	16,500
	3 desk lamps	4,500
	3 large desks (designers), ergonomic	21,000
	3 filing cabinets	15,000
	Cabinet	10,000
	Shelves	7,000
	Large table	14,000
	Computer and printer trolley	4,000
	Trolley for 2 DTP printers, scanner	4,000
Production	2 desks	10,000
	2 chairs	10,000
	2 desk lamps	3,000
	Ergonomic computer and printer table	6,000
	1 swivel chair	5,500
	Filing cabinet	5,000
	Cabinet	10,000
TOTAL (rupees)		338,500 (DKr. 39,300)

Equipment

Computer equipment is listed in Appendix 7.

Section	Item	Cost (Rupees)
Planning	Fax	30,000
	Photocopier (desktop)	80,000
Design	Guillotine (office)	14,000
	Vacuum cleaner (hand, cordless)	3,000
Production	Photocopier (desktop)	80,000
	A3 Duplicator-printer (eg Gestetner)	300,000
PPC	Heating/air conditioning system	?
	Telephones	?
	Electricity Generator	1,200,000
	Small equipment: Letter trays; staplers, comb-binder, calculator with printer, reference books	40,000
	TOTAL (Rupees)	1,747,000 (DKr. 150,480)

Room Plans

See next page.

The PPC should ideally be accommodated in a suite of four adjoining and interconnected offices (1st drawing). Each office corresponds to a section. Approximate dimensions are:

- Planning section 2.2 x 4.5m
- Editorial section 7.5 x 4.5m
- Design section 3.0 x 4.5m
- Production section 10.0 x 4.5m

Alternatively, the production and design sections can be put together, although the number of staff in the office would then be 8 (2nd drawing).

ROOM PLAN GOES HERE

ANOTHER ROOM PLAN GOES HERE

DETAILED COMPUTER HARDWARE & SOFTWARE SPECIFICATIONS & COSTS

(a) **Publishing Management System**

Hardware & Software Specifications

File Server

Compaq Proliant 1600 6/266 M1 HPL, 64MB RAM
64MB Upgrade (Total of 128MB RAM)
4.3GB Wide-Ultra SCSI Pluggable Hard Drive
(This provides 8GB RAID 5 Storage with the Controller below)
SMART 2DH Array Controller
V40 Monitor

The server specified above has 3 X 4GB Hard Drives, arranged as a RAID 5 Cluster which gives 8GB of fault-tolerant disk space. If one drive fails, the server will carry on uninterrupted.

The above specification provides adequate capacity for the foreseeable future.

The Server, with 128MB RAM will be running Windows NT, Oracle, Arcserve and the Arcserve/Oracle back-ups as well as providing file and print services.

File Server Back-Up

12/24GB DAT Tape Back-Up, Internal
DAT Tape Cartridges – Pack of 10

Power Management

Hot Plug Redundant Power Supply
UPS T/1500 VA (Uninterrupted PSU)

Server/Client Software

Microsoft NT Server V4 Full Version, Plus 5 Clients
10 Microsoft NT Server V4 Client Licences
(This gives 15 in all and covers the 14 'Publishing Cell' System Users)
Arcserve NT, Single Server Back-Up Software
Arcserve NT Back-Up Agent for Oracle
Oracle Workgroup Server for NT (assumes 15 Users)

System Printer

HP Laserjet 4000N – Ethernet (Networked)

Local Area Network Components

24 Port 10/100 Unmanaged Ethernet Port (UTP)
Cabling of Network with Flying Leads for PCs, Printers and Server

Note:

- 1 All rooms which may at some time be expected to house any computer equipment (PCs, Printers) should be wired-up at the beginning.
- 2 The configuration and installation of the Local Area Network must allow any user to log on at any PC, and be provided with his/her own desktop privileges, using 'Roaming Profiles'.

Communications with Remote Users

Dial up is not recommended at present. The remote communications are not very flexible due to the present limitations of the communications services in Nepal. If dial-up is to be used, then by preference exchanges should be digital in order to achieve reasonable speeds. When dial up can be introduced, the following equipment will be needed:

1 Server Dial-Up Modem (e.g. USR Sportster)
Dial-Up Modem per Remote location (ie, 1 for SEU, 1 for WEU at Keshar Mahal)

Desktop User PCs (14)

Digital Pentium II 233MHz MMX
32MB RAM
3.2GB Hard Drive
CD-ROM 32 Speed
10/100 Ethernet
Microsoft NT V4
15" Monitor

User Printers

HP Laserjet 6L (or similar)

Please note that, in certain offices, printers are shared by PC users (e.g. In the Editorial Section there are 3 PCs, with 1 Printer)

Desktop Software

10 Microsoft 'Office 97' *Licence Only Pack*
5 Microsoft 'Office 97', *with Media*, Licences

Hardware and Software Costs: Publishing Management System

(Please note that all prices have been converted from UK Pound Sterling £1=Dkr 11.61, and are UK List Prices.)

	Dkr
File Server (Central Processor)	70,299
File Server Tape Back-Up System + 10 Tapes (for system security)	12,260
Uninterrupted Power Supply (UPS)	10,159
System Software (Microsoft NT; Arcserve; Oracle)	59,815
System Printer	10,890
Local Area Network (LAN) Components & Cabling	34,830
Communications Modems (needed later for remote locations)	97,524
14 User PCs	191,797
8 User Printers	23,220
Users Desktop Software (Microsoft Office 97)	50,411
Customised program for the Book Progress Monitoring and Costing System*	116,100
Total Budget Cost for Publishing Management System	677,305

The above prices will cover all wiring, installation and commissioning.

*The cost of programming the "Book Progress Monitoring & Costing System" can only be estimated at this stage, for two reasons:

1. The specification has not yet been produced. This should be produced by a computer system analyst.
2. Local programming rates and programmer skills levels have not been ascertained.

(b) **The Desktop Publishing System**

Hardware & Software Specifications

For the Typesetters (3)

Apple Macintosh Entry Level Powermac 7300 200MHz
2GB Hard Drive Capacity
Network Card
160MB RAM Capacity (Add in 32MBs)
17 inch Monitor

For the Design Manager & Designers (3)

Power Apple Macintosh 9600 350MHz
6GB Hard Drive Capacity
Network Card
192MB RAM Capacity (Add in 32MBs)
20 inch Monitor

System Storage

2 units X Magnetic Optical 640 Drives
10 Optical Disks

Scanner

Agfa A3/A4 Duoscan D2000XL
(To Scan Drawings, Slides, Transparencies, Photographs & Negatives)

Printers

A3/A4 Apple Macintosh Laserwriter 850 (20 pages per minute) 16MB RAM
32MB Additional RAM
Network Card
AAUI Transceiver
5 X Toner Cartridges (7,500 pages per Cartridge)

A3/A4 Canon Bubblejet BJC 4450 Photorealistic (0.5 pages per minute)
Network Card
5 X Toner Cartridges (7,500 pages per Cartridge)

Desktop Software

6 X Microsoft Word 6.0	(All Users)
6 X Adobe Pagemaker 6.5	(All Users)
3 X Micromind Freehand 7.0	(Design Manager & Designers)
3 X Adobe Photoshop 4.0	(Design Manager & Designers)

Hardware & Software Costs

Supplier's costs must include full wiring, installation and commissioning and the budget below will cover these.

	DKr
3 Typesetters' Entry Level Power 7300 MacIntoshes (17 inch Screens)	72,969
Design Manager & 2 Designers' 9600 Power MacIntoshes (20 inch Screens)	167,184
A3/A4 Scanner	37,733
2 Magnetic Optical Storage Devices (Will hold all DTP work)	11,610
10 Optical Disks	3,483
A3/A4 MacIntosh 850 Laserwriter (20 pages per minute)	26,703
A3/A4 Canon Bubblejet Colour Printer (0.5 pages per minute)	6,966
Stock of 10 Toner Cartridges for Laserwriter	20,898
Microsoft Word Software for all Users (6)	13,932
Adobe Pagemaker 6.5 for all Users (6)	26,703
Micromind Freehand 7.0 for Design Manager & Designers (3)	8,940
Adobe Photoshop 4.0 for Design Manager & Designers (3)	12,771
Total Budget Cost for DTP system	409,892

APPENDIX 8

BOOK PROGRESS MONITORING AND COSTING SYSTEM: EXAMPLE OF PART OF STRUCTURE

The following shows a part of the structure for the specification of the BPMCS which will be needed for the customised program to be written.

Tasks	Responsibility
BOOK/MATERIALS BASIC INFORMATION	
Title	Publishing Manager
Grade	Publishing Manager
Copy Editor	Publishing Manager
Language Editor	Publishing Manager
NSBN (Nepalese Standard Book Number)/Product Code	Publishing Manager
Edition Sequence Number	Publishing Manager
Type of Book/Material (e.g. Text Book, Teacher's Guide, Pamphlet)	Publishing Manager
Budget Cost (By BPEP Management)	Publishing Manager
Language (e.g. Nepalese, English)	Publishing Manager
Author(s)	Editorial Section
Contract Date for Delivery of Manuscript	Editorial Section
Total Pages	Design Manager
Number of Illustrator(s)	Design Manager
Pagemaker(s)	Design Manager
Illustrator(s)	Design Manager
Presentation: Pages by Computer	Design Manager
Pages Involving Handwork	Design Manager
Pages Involving Scanning	Design Manager
Pages Involving Photographs	Design Manager
Condition: Reprinted Pages with No Changes	Design Manager
Revised Pages	Design Manager
New Pages	Design Manager
TASKS TO BE SCHEDULED & CARRIED OUT	
Publication Authorised	Publishing Manager
Author(s) Agreed	Editorial Section
Author(s) Appointed	Editorial Section
Illustrator(s) Agreed	Design Manager
Illustrator(s) Appointed	Design Manager
Writing Started	Editorial Section
Complete Manuscript Received	Editorial Section
Manuscript Checked & Made Ready for Computer Input	Editorial Section
Manuscript Passed to Typesetting Unit	Editorial Section
Manuscript Received by Typesetting Unit	Design Manager
Inputting Text into Computer System Started	Design Manager
Inputting Text into Computer System Completed	Design Manager
Typescript Passed to Editorial Section	Design Manager
Typescript Received by Editorial Section	Editorial Section
Copy Editing Started	Editorial Section
Copy Editing Completed	Editorial Section
Typescript Passed to Language Specialist	Editorial Section
Typescript Received by Language Specialist	Language Specialist
Language Checking Started	Language Specialist
Language Checking Completed	Language Specialist
Typescript Passed to Typesetting for Amendment	Editorial Section
Typescript Received by Typesetting for Amendment	Design Manager
Amended Typescript Returned to Editorial Section	Design Manager
Amended Typescript Received by Editorial Section	Editorial Section
Typescript Submitted to Publishing Manager for Approval	Editorial Section
Typescript Received by Publishing Manager for Approval	Publishing Manager
Typescript Approved	Publishing Manager

Tasks	Responsibility
Typescript Passed to Design Section	Publishing Manager
Pagemaking Commenced	Design Manager
Typescript, Illustrations, Photographs Ready	Design Manager
Pagemaking Ready	Design Manager
Pagemaking Passed to Publishing Manager for Approval	Design Manager
Pagemaking Received by Publishing Manager for Approval	Publishing Manager
Book/Material Passed for Publication	Publishing Manager
Camera Ready Copy (CRC) Produced	Design Manager
Camera Ready Copy (CRC) Passed to Publishing Manager for Approval	Design Manager
Camera Ready Copy (CRC) Approved by Publishing Manager	Publishing Manager
Print Specification Prepared (Not Mass-Produced Textbooks)	Production Control
Print Specification Approved(,, ,, ,,)	Publishing Manager
Print Specification Passed to Printers(,, ,,)	Production Control
Quotations Received (,, ,, ,,)	Production Control
Quotations Submitted to Production Manager (,, ,,)	Production Control
Quotations Received by Publishing Manager (,, ,,)	Publishing Manager
Printer Appointed (,, ,, ,,)	Publishing Manager
Camera Ready Copy (CRC) Sent to Printer	Production Control
Page Proofs Received	Production Control
Page Proofs Approved	Design Manager
Approval to Print Given	Publishing Manager
Running Sheets Received	Production Control
Running Sheets Approved	Production Control
Cover Proofs Received	Production Control
Cover Proofs Approved	Design Manager
Approval to Print Covers Given	Publishing Manager
Approval to Bind Given	Publishing Manager
Advance Copies of Books/Materials Received	Publishing Manager
Advance Copies of Books/Materials Approved	Publishing Manager
Books/Materials Approved for Distribution (as applicable)	Publishing Manager

Each Task will have the capability to enter the '**Estimated Date**', '**Revised Date**' and '**Date Completed**' against it, for tracking purposes.

APPENDIX 9

INVENTORY OF EXISTING COMPUTER EQUIPMENT AT SANO THIMI

PCTDU – Design Department

Apple MacIntosh Quadra 650 PC – 19" monitor	Spare machine in new set-up – To cover in the event of breakdowns
Apple MacIntosh lici PC	Unusable – slow/way out of date
Apple MacIntosh Classic II PC	Unusable – slow/way out of date
Apple MacIntosh Imagewriter II Matrix Printer	Unusable – must use lasers only
Apple MacIntosh Laserwriter II 300 dpi	Unusable – need higher quality – 600dpi minimum

PCTDU – Unit Chief

Syntax 286 plus Turbo PC	Unusable – slow/cannot use today's desktop software
Epson LQ1050 Matrix Printer	Unusable – need laser printer

RCDU (in 1 office)

Compaq (Unbadged) 286 PC	Unusable – slow/cannot use today's desktop software
Syntax 286 plus Turbo PC	Unusable – slow/cannot use today's desktop software
Epson EPL5500 Matrix printer	Unusable – need laser printer
Epson LQ1050 Matrix printer	Unusable – need laser printer

NFEU (in 1 room)

Acer 286 Acermate 433 PC	Unusable – slow/cannot use today's desktop software
Compaq 286 433 PC	Unusable – slow/cannot use today's desktop software
Epson EPL/5500 matrix printer	Unusable – need laser printer

PUBLISHING MANAGEMENT SYSTEM EXPANSION

The publishing management system will have the capability to expand so that it can cater for much higher volumes and additional Units. The hardware and software requirements for expansion and the costs are as follows:

File Server

The existing specification of the File Server (Central Processor) which is located in the Primary Publishing Cell, at Sano Thimi will allow for an increased number of Units to use the computerised 'Publishing Management System' without any enhancement to its specification.

When the number of individual computers which are users exceeds 15, it will be necessary to add the following:

- Microsoft NT Server V4 Client Licence (This 10-Pack is the most economical)
- Oracle Workgroup Server for NT Licence (Again, this 10-Pack is the most economical)

To Add a Unit, Located at Sano Thimi, to the User Community

The following equipment will be required:

- 1 X Pentium II 233MHz PC (specified in Appendix 7,a)
- 1 X HP Laserjet 6L Printer (specified in Appendix 7,a)
- 1 X Flying Lead for the PC
- 1 X Flying Lead for the Printer
- Cabling

Total cost of adding one unit to the system is about Dkr 17,400.

To Add a Unit, Located at Keshar Mahal, to the User Community

The following equipment will be required :

- 1 X Pentium II 233MHz PC (specified in Appendix 7,a)
- 1 X HP Laserjet 6L Printer (specified in Appendix 7,a)
- 1 X Dial-Up Modem (e.g. USR Sportster VFAST)
- 1 X Flying Lead for the PC
- 1 X Flying Lead for the Printer
- Cabling

Total cost of adding one remote unit to the system is about DKr 23,000.

Communications

Assuming that dial-up has been introduced for remote users (using the standard dial-up capability), if the number of remote user-locations increases significantly, this will result in very poor response times. It is therefore recommended that an ISDN telephone line is implemented.

TENDERING FOR THE COMPUTER SYSTEM AND PROGRAM WRITING**(a) Goods and Services to be Supplied**1 Desktop Publishing System

For overview, see Appendix 5, item 3B; for training, Appendix 4, item 2H; and for equipment and software, Appendix 7, section (b).

2 Publishing Management System

For overview, see Appendix 5, item 3c; for training, Appendix 4, items 2I and 2J; and for equipment and software, Appendix 7, section (a) but excluding writing the program for the "Book Progress Monitoring and Costing System".

3 "Book Progress Monitoring and Costing System" Program

For overview, see Appendix 5, item 3D; for training, Appendix 4, item 2L; and for specification, see Appendix 9 for part-example of specification to be written by computer system analyst.

(b) Recommended Suppliers

The following suppliers are recommended for the Limited National Bids (see 3.5)

1 Desktop Publishing System

Mac Support Professionals
MIPS Pvt. Ltd.
Innovative Systems

The local suppliers have the capability to supply Desktop Publishing System. Mac Support Professionals were particularly impressive.

2 Publishing Management System

Mercantile Office Systems (Hardware, Network, Communications, Microsoft products and programming)
Computer Advanced Systems (Hardware, Network, Communications, Microsoft products and programming)
Otard International (Hardware, Network, Communications, Microsoft products and programming)

The local suppliers have the capability to supply and install the local area network (LAN) for the Publishing Management System. However, there is very little local experience of connecting remote users via telephone systems. Therefore connection by diskette is initially recommended.

3 “Book Progress Monitoring and Costing System” Program

System Consultants (Specialist Programming only)

As far as computer programming is concerned, great care must be taken when selecting a supplier. Many suppliers have experience in writing small Microsoft Access programs for stand-alone PCs, but very few have the capability to develop programs which concurrent users of the network will use. Of the suppliers met, only System Consultants had anywhere near the level of experience required, and they would be calling upon a business partner in India for assistance.

(c) Criteria for Selection

When selecting the suppliers for the Publishing Management System and the Desktop Publishing System the following criteria should be applied:

- Years in business
- Funding of the supplier's business – limit and source
- Number of staff and growth
- Forward business plans
- Number and age of dealerships, and with whom
- Number of specialist staff and their specialisms
- Number of years' experience selling specialist products
- Major customers & projects (size, complexity, quality, timeliness & costs)
- Customer training services, staffing and price structure
- Post delivery support
- Internet and Email (The Internet and its future offerings will be vital to MOE)

APPENDIX 1