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# UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

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## ROAD RESOURCES MANAGEMENT PROJECT

### PAKISTAN

# TRAINING PROGRAM

VOLUME 1 OF 1 (190 PAGES)

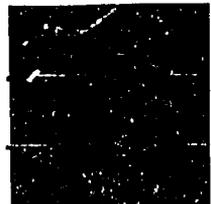
MAY, 1989

**CONSTRUCTION CONTROL SERVICES CORPORATION**

USAID CONSULTANTS FOR ROAD RESOURCES MANAGEMENT PROJECT

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# TRAINING PROGRAM



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## ACRONYMS

AIM	Asian Institute of Management
AIT	Asian Institute of Technology
CCSC	Construction Control Services Corporation
CFR	Course Final Report
CMTC	Construction Machinery Training Centre
COP	Chief of Party
DC	District Councils
EDI	Economic Development Institute
FS	Financial Specialist
GM	General Manager
GOP	Government of Pakistan
GOS	Government of Sindh
MMS	Maintenance Management System
NTRI	Municipal Training and Research Institute
NCRD	National Centre for Rural Development
NIPA	National Institute of Public Administration
NTRC	National Transport Research Centre
PIM	Pakistan Institute of Management
RMU	Rural Management Units
RP	Road Planner
RRM	Rural Roads Management Project
SAARC	South Asia Association for Regional Cooperation
SCR	Start of the Course Report
TOFEL	Test of English as a Foreign Language
TS	Training Specialist
USAID	United States Agency for International Development

## P R E F A C E

This Road Resources Management (RRM) Training Program is not the product of a single individual or group. It is the synthesis by the C.C.S.C. of the opinions, candid discussions pro and con, and wide ranging desires of a large number of pragmatic and informed District, Provincial and Federal Government officials and US Agency for International Development's professionals committed to the RRM Project.

Part 1 is the Program to be read jointly with Part 2, the Program's Appendices.

The Training Program originally prepared in September 1986 has been revised. The revisions are not material and/or substantial. They have been carried out to affect the following:

- o Incorporate suggestions or comments offered by GOP and USAID on the September 1986 version of the plan.
- o To add details and specifics which have become available since September 1986, especially in the outline of syllabi, training schedule, training budget and visits to the Asian Institute of Management and the Asian Institute of Technology.

The training team wishes to express gratitude to the numerous individuals, including Council Chairmen, District Officers, Engineers and Provincial and Federal Governments staff members involved with the RRM Project for their full support of this effort and their acknowledged desire to see it carried out effectively.

I. SECTION I: SUMMARY

- 1.1 The objective of this Training Program is to present a cohesive and integrated approach to all training related activities required to effectively implement the Road Resources Management Project. The proposed training is scheduled to continue until March 31, 1971, and has been planned to make full technical use of the numerous Consultant Specialists assigned to the Project.
- 1.2 The Program is organized systematically to initially supply background, existing resources, and presently recognized problems.
- 1.3 This is followed by a section on training needs identification and the development of specifications and training objectives for activities designed to meet those needs. This section is of greatest importance to the trainers. With this information as background, a summary of proposed training activities is presented in Section V; each activity is described in more detail in Section VI.
- 1.4 This Program, although based on the terms of reference of the contract, does not cover several areas normally present in a comprehensive human resources development plan, namely:

1.4.1 It covers only training, as specified, and does not cover the other elements of human resources development and organization design, such as manpower planning, job descriptions, staffing, recruiting, selection and hiring, job incentives, career development, personnel policies. These other elements affect the quality of training and are ingredients of a fully integrated system for human resources development. For the purpose of this program, however, they are considered fixed by Government policy and beyond CCSC's scope of work.

1.5 CCSC's Training Specialist and short term expatriate Training Advisor visited eight of Sind's 13 district engineers offices at Sukkur, Hyderabad, Tharparkar (at Mirpurkhas), Nawabshah, Shikarpur, Jacobabad, Karachi East and Khairpur; held extensive discussions with the road maintenance staff and obtained valuable information and suggestions. In addition, key personnel in all involved Provincial and Federal Government agencies were interviewed and their inputs sought. See Appendix A for a complete list of these contacts. Later, the CCSC Training Specialist visited Sukkur, Khairpur, Larkana, Jacobabad, Shikarpur and Karachi East District Councils to collect data on the trainees nominated by these councils. During these interviews, specific questions were asked by means of a questionnaire which is in Appendix B. A report on this data collection initiative is attached as Appendix C and is a supplement to Appendix B.

1.6 This program gives training objectives and outlines syllabi for each course. Development of detailed course materials i.e. lesson plans, students' hand-outs, precis, training aids would be the task of training contractors. The program should be refined and updated annually.

## SECTION II: INTRODUCTION

2.1 The statement of work for the Road Resources Management Project emphasizes training as a key activity of both the Rural Roads and the Highway Policy components. It also specifies that an overall training program should be prepared to identify appropriate training activities, primarily in-country. The out-of-country training and observation tours are still subject to negotiations. When a decision is arrived at on this issue, a supplement to this training program covering overseas training will be prepared.

### 2.2 Goal

2.2.1 The overall goal of this Training Program is to develop and present an integrated approach to insure that all personnel involved in the RRM Project are properly trained to understand its basic concepts and how these concepts will be implemented. This implementation and associated training will be done jointly by CCSC (supported by qualified training contractors) and the various involved government agencies and district councils during the project period. Upon completion of implementation by the time of contract completion, these agencies - Federal, Provincial, and District - must be capable of sustaining this implementation, evaluating it and refining the RRM System's various components by themselves.

2.2.2 The persons included in this effort are the Government of Pakistan (GOP) officials who will set road maintenance and construction policies and oversee the project; Government of Sind (GOS) officials who will provide for implementation of policies and monitor accomplishments; and lastly, but most important to overall project implementation success, the District Councils' officers, and the chairmen, the chief officers, the accounts officers, district engineers, sub-engineers, supervisors and workers of the District Councils.

2.2.3 Upon completion of the numerous training activities described in this program, the above noted personnel will be qualified to provide professional support to RRM effort during its implementation phase and of continuing the effective operation of, and pre-requisite training on, the fully developed RRM system after completion of the CCSC's contract.

### 2.3 Plan Development and Content

2.3.1 The program presents the general background of the RRM Project; rationale for course selection through analysis of needs; criteria for course development; and a tentative schedule.

2.3.2 The activities discussed in the program cover the project period of July 1989 to end of project on December 31, 1991, although the training program is scheduled to end at the end of March 1991.

## SECTION III: BACKGROUND INFORMATION

### 3.1 Project History

3.1.1 The basic objectives of the REM is to provide the thirteen Sind districts with technical assistance and services to:

- Establish maintenance management systems by setting-up Rural Road Maintenance Units (RMUs) in each District, to assume the maintenance of maintainable roads.
- Rehabilitate and/or Reconstruct a core network of maintainable all-weather roads.
- to build experimental roads.
- to upgrade katcha roads.
- to build new katcha roads to serve villages as yet unserved.
- Improve the current system for operation and management of financial resources.
- Provide relevant training to support the above activities.
- Conduct road financing, management and maintenance policy analyses to assist development of an effective provincial and federal road development strategy and provide training in the transport sector at national, provincial, and district levels.

3.1.2 The Expatriate Training Advisor and CCSC's long term Training Specialist began orientation visits to Sind's Districts to gather preliminary data on training needs in June, 1988. They also met with key Federal and Provincial Government and USAID officials directly involved in the Project. (See Appendix A for contacts made).

3.1.3 This program completed before, but reviewed since, the road construction and maintenance, mechanical equipment support and financial management systems of RRM Project includes training objectives and outlines syllabi. Detailed course material, however, will be developed by the training contractors within the limits circumscribed in the training specification for proposed courses (Section VI). It is the duty of the CCSC Training Specialist to ensure timely incorporation of any further material developments in the RRM system and its sub-systems in the training plan.

3.2 Existing Situation - District Rural Road Maintenance in Sind Province

3.2.1 The Province of Sind has about 12,000 kilometers of rural roads in its 13 districts classified as follows from Techno Consult Report:

Metalled	1,677
Shingle Brick	191
Katcha (Earthen)	10,180
	-----
	12,048
	-----

3.2.2 These figures are approximate, based on an early report and currently being updated. In addition, rural road conditions are being evaluated using a set of criteria which places each road section into a specific category for each of 15 maintenance operations. Road conditions are classified as follows:

Class 5 - Like new

Class 4 - Minor work necessary to keep in condition

Class 3 - Major maintenance necessary

Class 2 - Major rehabilitation needed

Class 1 - Must be reconstructed

3.2.3 At present, class 4 routine maintenance of these roads is carried out in each district by semi-skilled workers (beldars) working as a team under a supervisor (daroghas). Generally about eight to twelve beldars will be under the control of one darogha.

3.2.4 The daroghas, in turn, are supervised by sub-engineers (generally grade 11 holding a diploma in civil engineering). Each sub-engineer oversees the work of three or four teams. (A diploma is obtained after three years of engineering education in a recognized school. (It is not a B.Sc. in civil engineering which is recognized as a degree).

3.2.5 Few of the districts have road maintenance equipment - some may have a few recent pieces (e.g rollers, dozers, graders) supplied by various donors, others have

outdated pieces of equipment.

3.2.6 Major road repairs or rehabilitation is always done now by contracting out to local contractors who have been pre-qualified and are on a bidders list.

3.2.7 In addition to the noted orientation visits and discussions, which were structured using a questionnaire (Appendix B), CESC conducted a survey of a majority (8) of the districts to determine the background history, education and language capabilities of the district engineers and their staff. (See Appendix C for form used). This survey showed rather similar backgrounds of district personnel. Key points related to planning of training programs are:

3.2.7.1 District Engineers (Grade 16 or 17)

Only two districts (Khairpur and Thatta) have district engineers with Bachelor of Science degrees. Most of the others have risen through the ranks over the years from a diploma sub-engineer, grade 11. (Some, however, have graduate degrees in humanities, law, commerce etc.)

- Ages vary from about 40 to 60
- All speak Sindhi, Urdu and English. Most would have problems in an English language course particularly if given by an expatriate and not reinforced in their mother language.

The Training Officer will work closely with them in developing district level courses to ensure their practicality.

**3.2.7.2 Sub Divisional Officers (Engineer) (SDOs) (Grade 16)**

More than 50% of the districts have SDOs. An SDO is supervised directly by the District Engineer and supervises Sub-Engineers. Their background, age and education are similar to district engineers and planning for their training would be the same.

**3.2.7.3 Sub-Engineer (Grade 11)**

All sub-engineers interviewed had civil engineering diplomas degrees. Ages varied from about 28 to 45 with about 35 years being average. All can read, write and speak Sindhi, Urdu and English. More than 1/2 have Sindhi as their mother tongue. Courses for sub-engineers should generally be given in Urdu or Sindhi or by an English speaking Pakistani expert.

**3.2.7.4 Daroghas (Foremen) (Grade 5)**

- i. These district council employees have usually spent their careers in the district. Some rose from beldars (common laborer) and some were hired directly.
- ii. Ages vary from about 30 to 50 years. They have much practical experience, up to 30 years on the job, however most are no more than semi-literate

and training would be mostly on-the-job in Sindhi, supported by graphic visual aids for any class room work. It will be conducted by the sub-engineers supervising them after they (the sub-engineers) have themselves been trained under this training program.

#### 3.2.7.5 Beldars (Workmen) (Grade 1)

Also generally remain in their home districts. Ages also vary from about 30 to 50 years. Most have been on the district payroll their full working lives. Almost all are illiterate and training must be primarily on-the-job in their mother tongue of Sindhi by their immediate supervisors.

### 3.3 Existing In-Country Training Resources

A survey was made of important training resources in the country. A large number of private and Government/parastatal organizations exist that can provide specialized support to planned courses. It is expected that as such organizations have qualified instructors, proper training aids and facilities, the courses could be contracted out competitively within Pakistan.

Appendix D lists the organizations and their areas of specialization. Appendix E describes National Institute of Public Administration, (NIPA), which,

because of its excellent facilities and convenient location, could be used for higher level courses. (district engineers and above). Appendix F describes National Transport Research Center (NTRC) whose close collaboration is essential both in development and training of highway policy components. Appendix G relates to National Center of Rural Development (NCRD) whose facilities could also be used in development and conduct of training. The CCSC Training Specialist visited IIPA (Appendix E), NTRC (Appendix F), NCRD (Appendix G), Construction Machinery Training Center (CMTC) (Appendix H). The following two institutions: Pakistan Institute of Management and the Municipal Training and Research Institute have been visited to ascertain their capacity to participate in this training plan. The report of these visits is shown in Appendix I and I-1.

### 3.4 The Sind Local Government and Rural Development Academy Tando Jam

3.4.1 The Project Paper discusses the use of the Tando Jam Academy for district level courses involving both classroom and on-the-job training. The CCSC Training Advisor and Training Specialist have visited the Academy and held detailed discussions with its Director and his staff, as well as other concerned government officials. A detailed discussion of the Academy's role are attached as Appendices J, J-1, J-2,

and J-3.

- 3.4.2 Tando Jam in its present state of operation would be inadequate for our training courses. It would require physical construction improvements which are outlined in Appendix J-2 as well as Training Aids/Equipment which is outlined in Appendix J-1.
- 3.4.3 The physical improvements referred to are construction work for which architectural and engineering services would be required, tenders called, contracts awarded and construction executed.
- 3.4.4 It is believed that this alternative is much too time consuming and certainly could not be completed on time for the start of the training courses.
- 3.4.5 Utilization of the Academy premises and faculty is certainly not considered necessary and not even suitable and/or cost effective for implementing the training program.

## SECTION IV: TRAINING NEEDS

- 4.1 The training activities proposed in this plan are based on studies by the expatriate Training Advisor and the Training Specialist of existing and projected future needs of all levels affected by the Project from the sub-engineers who interface with contractors and semi-skilled/unskilled labour actually carrying out the maintenance to the senior government administrators responsible for policy making and overall guidance.
- 4.2 These studies refer to several major areas:
- 4.2.1 Visits to eight of the 13 districts and the filling out of detailed questionnaires on current operations and discussions with each district engineer and his sub-engineers. In addition, a personnel audit was made to determine road maintenance staff basic data on grade, age, education, and work history. Forms used for these activities are in Appendices B and C.
- 4.2.2 Inspection tours of in-country training organizations to determine which courses identified as required could be given in their facilities. These tours identified potential contractors in specific areas (e.g. management workshops) as well as existing and required physical facilities and training aids. Appendix D lists these organizations.

- 4.2.3 Discussions with CCSC's technical staff to obtain an understanding of the impact of applying the planned Rural Roads Management Program to Sind's 13 districts; the training required by addition of new road maintenance equipment and the staffing increases necessitated.
- 4.2.4 Course specifications for each identified area are to be reviewed with CCSC's technical staff members and government officials directly involved, so that technical details and priorities are realistic. The specifications include specific course syllabi.
- 4.3 It became clear through these analyses that the key link in the chain from policy maker to the personnel carrying out the maintenance were the sub-engineers in the districts. These sub-engineers, in almost every case qualified civil engineering diplomates, will eventually be in charge of a number of newly formed Road Maintenance Units (RMUs) and on-the-job training of the darogas, equipment operators and beldars under the direction of Sub-engineers. Their responsibilities will therefore greatly increase when the district has its own maintenance equipment.
- 4.4 The "Summary of Proposed Training Activities" in Section V shows the type of course, type and number of participants, the course duration and the number of trainee groups to be trained. Following this overview,

each course is described in detail in a standard format in Section VI.

#### 4.5 Training Needs Analysis

4.5.1 Training will be required in the future, though not under this program, for road maintenance workers (beldars) who will be using the new equipment (e.g. mechanical tampers, jack hammers etc) to be supplied to the RHUs. They must be given some theory of operation and safety and on-the-job training by the sub-engineers and daroghas on the specific equipment before it is put into regular use. The equipment manufacturer's operating and safety instructions therefore provide the basis for such training, which must be given by expert instructors. Of course, sub-engineers must also have this training if they are to properly supervise such operations.

4.5.2 In case heavy mobile equipment, such as graders, rollers etc. that might be given to the RRU, experienced/qualified operators must be hired. The personnel (managers, supervisors, mechanics) that will perform maintenance and repairs on this equipment must be properly trained in using the manufacturers maintenance manuals for guidelines.

4.5.3 Training at the management and supervisory levels will be necessary for district engineers and sub-engineers.

CCSC's Maintenance Management System (MMS), when developed, will be the basis for developing practical syllabi for these persons.

4.5.1 Higher level managers need to be given a technical overview of the MMS but will require a broader course in management principles, as described in Section III.

4.6 The information obtained through the four previously noted activities was converted into training requirements or specifications based on identified existing and future needs. The technical description for this conversion is presented in Section VI.

## SECTION V: SUMMARY OF PROPOSED TRAINING ACTIVITIES

5.1 Table 1 lists the specific activities (courses, workshops) proposed for three levels of staff (district, provincial and federal). These activities have been identified by CCSC as necessary to meet the objectives of the overall RRM Project. They should be carried out during the project period ending on 31 December, 1991 to take full advantage of CCSC's expertise in the technical details required for course material preparation.

5.2 Each of the following activities, as listed by title in Table 1, are described in detail in Section VI.

TABLE 1 (1 of 2)

SUMMARY OF TRAINING SPECIFICATIONS					
COURSE NO	TITLE	PARTICIPANTS	NUMBER OF PARTICIPANTS*	DURATION	NUMBER OF TRAINER GROUPS
DL-1	Management Workshop	District Chief Officers and District Engineers	26	Two Weeks	2
DL-2	Road Engineering Workshop	District Engineers	13	Two Weeks	1
DL-3	Road Maintenance Course	District Engineers, Sub-Divisional Officers(Engineers) Sub-Engineers and RNU Sub-Engineers	80	Three Weeks	4
DL-4	Engineering Survey Course	District Engineers Sub-Divisional Officers(Engineers) Sub-Engineers	65	Four Weeks	4
DL-5	Contract Administration and Quality Control Course	District Engineers Sub-Divisional Officers(Engineers) Sub-Engineers	65	One Week	3
DL-6	Road Drainage Structure and Protective Works Course	District Engineers Sub-Divisional Officers(Engineers) Sub-Engineers	65	Two Weeks	3
DL-7	Soil Mechanics Course	District Engineers Sub-Divisional Officers(Engineers) Sub-Engineers	65	One Week	3
DL-8	Preparation of Estimate Documents Course	District Engineers Sub-Divisional Officers(Engineers) Sub-Engineers	65	One Week	3
DL-9	Bridges and Culverts Course	District Engineers Sub-Divisional Officers(Engineers) Sub-Engineers	65	One Week	3
DL-10	District Council Fund Generation Course	District Council Chairmen, Accounts/Taxation Officers, upto 3 selected members of each District Council	70	One Week	4
DL-11	Road Maintenance and Supervision Course	Sub-Divisional Officers (Engineers) Sub-Engineers, RNU Sub-Engineers	70	One Week	3

TABLE 1 (2 of 2)

SUMMARY OF TRAINING SPECIFICATIONS					
COURSE NO	TITLE	PARTICIPANTS	NUMBER OF PARTICIPANTS*	DURATION	NUMBER OF TRAINEE GROUPS
DL-12	Road Maintenance Equipment Mechanics Course	Sub-Engineers(Mechanical) Foremen and Mechanics	26	Three Months	4
DL/FP13	Principles of Public Accounting and Budgeting-1 Course	District Chief Officers Accounts/Taxation Officers Local Govt. & Rural Dev. Officials of GOS, Members of District Councils Resource Allocation Committee.	60	Three Weeks	3
DL/FP14	Principles of Public Accounting and Budgeting -II Course	Accounts, Auditors, Account Clerks of District Councils and GOS Dept. of Rural Dev. and Local Government.	60	Three Weeks	3
DL/FP15	Local Government Financial Management System and its Implementation in RRM	Selected Chairmen, District Chief Officers & Districts Engineers, GOS Officials of Rural Development and Local Government Officers, Selected District Council Members	60	Three Weeks	3
FP-16	Management Workshop	GOP Officials of MLGRD, GOS Officials of C&W Local, Government, Rural Development and Planning, Development and Finance Dept.	40	One Week	
FP-17	Financial Policy Making Workshop	Sr. GOP Officials from MLGRD, PRDEC, NTEC, National Highway Board, Joint Economic Affair Cell, Ministry of C&W and GOS Officials from the Dept. of Finance, Local Govt., Rural Dev., Communication and Works.	20	Two Weeks	1

\* The numbers shown herein are approximate only and are probably on the high side.

SECTION VI:

TRAINING COURSE SPECIFICATIONS

(SYLLABI)

## 6.1 MANAGEMENT WORKSHOP

<u>TITLE</u>	Management Workshop
<u>COURSE NO</u>	DL - 1
<u>PARTICIPANTS</u>	District Chief Officers & District Engineers
<u>NUMBER OF PARTICIPANTS</u>	26
<u>DURATION</u>	Two Weeks
<u>NUMBER OF TRAINEE GROUPS</u>	Two Trainee Groups of 13 Participants each

### TRAINING OBJECTIVES

Upon completion of this workshop, the participants should be:

- o Capable of applying the principles, concepts and techniques of modern management to the performance of their jobs.
- o Able to communicate horizontally and vertically with near perfect facility.
- o Able to create an organizational culture oriented to efficient utilization of resources in the achievement of organizational objectives, specially with regard to construction and maintenance of rural roads.
- o Able to periodically evaluate the performance of their respective organizations and initiate and implement corrective processes.

### OUTLINE SYLLABUS

- o Determination of Organizational Goals and Objectives, Job and Task Design.
- o Planning for the Achievement of Goals, Scheduling and Allotment of Human and Material Resources to Tasks.

- o Directing the Organizational Effort to Achievement of Goals, Day to Day Problem Solving, Decision Making, and Crises Management.
- o Organizational Leadership, Incentives and Motivation.
- o Management of Human Resources; Staffing, Training, Performance Evaluation.
- o Resource Control, Cost Control, Management Information Systems and their Role in Control.
- o Time Management and Time Control.
- o Organizational Performance Analysis and Review Techniques, Corrective Measures, their Determination and Implementation.
- o Management of Change, Innovation and Development.

#### TRAINING METHODOLOGY

Lectures

Class Discussions

Case Studies

#### TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Training Specialist before conducting the course.

#### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the CCSC Training and other specialists. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

CLOSE SUPERVISION AND MONITORING

Course will be supervised and monitored by the CCSC Training Specialist who will also evaluate the trainees' and faculty performance.

## 6.2 ROAD ENGINEERING WORKSHOP

TITLE Road Engineering Workshop

COURSE NO DL - 2

PARTICIPANTS District Engineers

NUMBER OF PARTICIPANTS 13

DURATION Two Weeks

NUMBER OF 1 Trainee Group of 13

### TRAINEE GROUPS

### TRAINING OBJECTIVES

Upon completion of this workshop the participants should be able to supervise:

- o Land survey and layout of rural roads applying the principles of traffic engineering.
- o Compaction and preparation of sub-grade.
- o Laying and compaction of sub-base (where necessary), base, and surfacing.
- o Construction of drainage structures.
- o Construction of protective works like retaining walls, breast walls and parapets.
- o Compaction and preparation of verges/berms/shoulders.
- o And inspect the work of a contractor carrying out a road construction, or road rehabilitation, or road periodic maintenance contract.

### OUTLINE SYLLABUS

- o Applications of Road Design Criteria, Axle Loads, Traffic Density, Design Speed and necessary surveys for their determination.

- o Road Survey and Alignment, Road Geometry including Laying Out of Horizontal (Simple and Transitional) Curves, and Vertical Curves, Standards for Sight Distance and Minimum Radii of Curvature, Ruling and Maximum Gradients.
- o Structure of Road Pavements, Compaction of Sub-grades and Shoulders, Soling or Bottoming.
- o Soil Mechanics as applied to Rural Roads.
- o Compaction, Standard Methods, Criteria, Field and Laboratory Tests.
- o Metalling, Size and Grading of Materials Selection of Road Metals, Field and Laboratory Tests, Estimation of Metal Quantities and Effort.
- o Carpeting, Asphaltic Bitumens and Road Tars, Standards and Qualities e.g. melting points, ductility, viscosity, adhesion. Field and Laboratory Tests, Premi and laid-in--Situ Carpets, Surface Dressing, Surface Painting and other Surface Treatments, Estimation of Quantities and Effort.
- o Road Drainage, Camber, Side and Intercepting Drains, Culverts.
- o Soil Stabilization, use of Oil, Cement and Chemical Stabilizers, Costs and Pavement Strengths.
- o Experimental Roads.
- o Inspection of Contract Executed Works during Execution and on Completion.
  - General and Special Specification of Contract.
  - Inspection of Materials.
  - Inspection of Pavement Structure.
  - Inspection of Road Geometry.

- Inspection of Drainage Structures and protective Works.

### TRAINING METHODOLOGY

Lectures

Class Discussions

Case Studies

Video Tapes by International Road Federation

### TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Road Planner and Training Specialist before conducting the courses.

### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the Road Planner and his team of Civil Engineers. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

### CLOSE SUPERVISION AND MONITORING

Course will be supervised and monitored by the CCSC Road Planner and his team of Civil Engineers. They will also evaluate the trainees and faculty performance.

### 6.3 ROAD MAINTENANCE COURSE

<u>TITLE</u>	Road Maintenance Course
<u>COURSE NO</u>	DL - 3
<u>PARTICIPANTS</u>	District Engineers, Sub-Divisional Officers (Engineers), Sub-Engineers and newly recruited Engineers working for RMU's.
<u>NUMBER OF PARTICIPANTS</u>	About 80
<u>DURATION</u>	Three Weeks
<u>NUMBER OF TRAINEE GROUPS</u>	Four Trainee Groups of about 20 participants each

#### TRAINING OBJECTIVES

Upon completion of this course, the participants should be able to:

- o Define basic principles of road maintenance.
- o Describe various elements of RRM road maintenance system and distinguish between different types of maintenance.
- o Prepare and implement a road maintenance program.
- o Analyse road maintenance tasks into distinct jobs for skilled and non-skilled personnel and thus structure a road maintenance team consisting of all elements essential to the job.
- o Estimate and forecast all material and equipment requirements for implementing a road maintenance program.
- o Estimate completion timings of maintenance tasks and prepare a maintenance schedule.

- o Manage, supervise and ensure successful implementation of a maintenance system, maintenance program and maintenance schedule.
- o Maintain records on job completion, material and effort utilized, time and costs of completed jobs.

**OUTLINE SYLLABUS**

- o RRM classification of road maintenance tasks.
- o RRM road maintenance procedures.
- o Job analysis and job structuring.
- o Estimating human and equipment resources required.
- o Quantifying maintenance materials.
- o Scheduling and time estimates for maintenance tasks.
- o Maintenance costing.
- o Preparation of completion reports and records.
- o Equipment utilization and control.
- o Supervision of Road Maintenance Teams and RNUs.
- o Inspection of Roads to determine Maintenance Needs.

**TRAINING METHODOLOGY**

Lectures

Class Discussions

Case Studies

Video Tapes by International Road Federation.

**TRAINING MANAGEMENT**

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Road Planner and the Training Specialist

before conducting the course.

**TRAINING FACULTY**

Mainly sub-contracted faculty to be used. Some classes may be given by the CCSC Road Planner and his team of Civil Engineers. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

**CLOSE SUPERVISION AND MONITORING**

Course will be supervised and monitored by the CCSC Road Planner and his team of Civil Engineers. They will also evaluate the trainees and faculty performance.

#### 6.4 ENGINEERING SURVEY COURSE

<u>TITLE</u>	Engineering Survey Course
<u>COURSE NO</u>	DL - 4
<u>PARTICIPANTS</u>	District Engineers, Sub-Divisional Officers (Engineers) and Sub-Engineers.
<u>NUMBER OF PARTICIPANTS</u>	About 35
<u>DURATION</u>	Four Weeks
<u>NUMBER OF TRAINEE GROUPS</u>	4 Trainee groups of about 16 participants each

#### TRAINING OBJECTIVES

Upon completion of this course, the participants should be able to:

- o Set up, adjust and use automatic levels, transits and/or theodolites, distomats, prismatic compasses.
- o Carry out surveying to prepare open and closed traverses; and longitudinal and cross sections.
- o Carry out surveying to prepare contoured plans of a given area.
- o Establish benchmarks and other datum points.
- o Layout vertical and horizontal (simple and transitional) curves for road construction/rehabilitation.
- o Mark the given alignment of road on the ground.
- o Transfer the alignment of a given road with all its features to a map.
- o Prepare plans, profiles and sections connected with planning, estimating and contracting documents.

## OUTLINE SYLLABUS

### 1. Mathematics:

Revision and updating of survey-related mathematics.

### 2. Land Survey Instruments:

Familiarization, adjustment and utilization of levels, theodolites, transits, distomats, plane tables, telescopic alidades, prismatic compasses, chains and tapes.

### 3. Land Survey Operations:

(a) Measurement of distances.

(b) Measurement of vertical angles and deduction of vertical intercepts from them.

(c) Measurement of horizontal angles.

(d) Preparation of open and closed traverses using prismatic compasses, chains and tapes.

(e) Check leveling.

(f) Profile leveling.

(g) Positioning of road alignment and hydraulic structures and other relevant details with chain survey.

(h) Preparation of contoured plans with levels, theodolites, plane tables and telescopic alidades.

(i) Horizontal and vertical controls for road construction/rehabilitation.

(j) Establishing BMs and other datum points.

(k) Laying out horizontal curves (both simple and transitional) with given radii of curvature.

(l) Lay out of vertical curves for given sight distances.

#### 4. Plotting and Drawing:

- (a) Preparation of field books and level books.
- (b) Plotting and drawing cross and longitudinal sections.
- (c) Plotting and drawing of traverse plans.
- (d) Plotting and drawing of chain survey details.
- (e) Preparation of drawings in connection with estimate documents.

#### TRAINING METHODOLOGY

Lectures

Class Discussions

Case Studies

Field Practice

#### TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Road Planner and Training Specialist before conducting the course.

#### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the Road Planner and his team of Civil Engineers. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

#### CLOSE SUPERVISION AND MONITORING

Course will be supervised and monitored by the CCSC Road Planner and his team of Civil Engineers. They will also evaluate the trainees and faculty performance.

## 6.5 CONTRACT ADMINISTRATION AND QUALITY CONTROL

<u>TITLE</u>	Contract Administration and Quality Control Course
<u>COURSE NO</u>	DL - 5
<u>PARTICIPANTS</u>	District Engineers, Sub-Divisional Officers (Engineers) & Sub-Engineers
<u>NUMBER OF PARTICIPANTS</u>	About 65
<u>DURATION</u>	One Week
<u>NUMBER OF TRAINEE GROUPS</u>	Three Trainee Groups of about 20 each

### TRAINING OBJECTIVES

At the end of this short course participants should be able to

- o Carry out pre-tender and contract planning.
- o Draw up, read and interpret contract documents and drawings.
- o Award and monitor the contract with respect to cost, specifications, quality and time.
- o Conduct site tests of materials and products and prepare samples for laboratory testing.
- o Interpret and apply contractual law correctly and use appropriate methods of contractor motivation.

### OUTLINE SYLLABUS

- o Pre-tender and Contract Planning.
- o Contract Documents and Drawings; Reading and Interpretation.
- o Organization of Site Office; Site Documents.
- o Time and Cost Control.
- o Work Specifications.
- o Detailed Specifications and Field Testing of Construction Materials.

- o Laboratory Testing of Concrete, Steel and other Construction Materials and Products.
- o Contractual Law, Arbitration, Resolution of Disputes and Avoidance of Litigation.
- o Contractor Motivation, Incentives and Bonuses.

#### TRAINING METHODOLOGY

Lectures

Class Discussions

Case Studies

#### TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Road Planner and the Training Specialist before conducting the course.

#### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the Road Planner and his team of Civil Engineers. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

#### CLOSE SUPERVISION AND MONITORING

Course will be supervised and monitored by the CCSC Road Planner and his team of Civil Engineers. They will also evaluate the trainees and faculty performance.

## 6.6 ROAD DRAINAGE STRUCTURE & PROTECTIVE WORKS COURSES

<u>TITLE</u>	Road Drainage Structures & Protective Works Courses
<u>COURSE NO</u>	DL - 6
<u>PARTICIPANTS</u>	District Engineers, Sub-Divisional Officers (Engineers), District Sub-Engineers
<u>NUMBER OF PARTICIPANTS</u>	About 65
<u>DURATION</u>	Two Weeks
<u>NUMBER OF TRAINEE GROUPS</u>	Three trainee groups of about 20 each

### TRAINING OBJECTIVES

Upon completion of this course, the participants should be able:

- o To demonstrate an understanding of the relation of the quantity and intensity of precipitation with the drainage needs of a road.
- o To demonstrate an understanding of the effects of soil type & utilization on the road drainage needs.
- o Calculate the sizes of side drains and, where needed, intercepting and catchment drains.
- o Lay out the alignment of all type of road drains.
- o Implement and execute culvert designs of various types of culverts.
- o Maintain and take timely action to clean and repair all drainage structures on a rural road.
- o Demonstrate an understanding of sub-soil drainage and its relation to the type and utilization of sub-grade soil; and the depth of the water table.

- o Execute engineering plans to drain sub-grades with due understanding of the sub-soil drainage methods.
- o Demonstrate their understanding of the functions of retaining walls and breast walls.
- o Demonstrate their understanding of the basic principles on which the design of retaining walls and breast walls is based.
- o Read design and construction drawings of breast walls and retaining walls and supervise their construction in brick, masonry, and/or reinforced concrete.

#### OUTLINE SYLLABUS

- o Importance of Surface and Sub-soil Drainage to the life of a road.
- o Calculation of a catchment area and its slopes, using contoured plans, and precipitation contributing run-off to a specific drainage structure.
- o Precipitation, quantity and intensity, run-off factors as a function of soil types, vegetation, and slope. Intense Periodic Storms, 50 and 100 years storms.
- o Calculation of maximum discharge expected to flow through a side drain, intercepting drain, and a culvert.
- o Determination of the size of various types of drains and culverts to take given discharges.
- o Maintenance of and repairs to Drains, Culverts and other Drainage Structures.

- o Determine cycle of recurrence of intense periodic storms and their effects on size and design of drainage structures.
- o Mechanical properties of the soils e.g. angle of repose, angle of internal friction, angle of friction.
- o Backing and Back Filling, Earth Pressure (Active & Passive), Surcharge or Surcharge Head.
- o Stability of Bank Slopes.
- o Lateral Pressure on Retaining and Breast Walls.
- o Sliding and Overturning of Retaining and Breast Walls.
- o Drainage of Retaining & Breast Walls. Rules for Placement of Weepholes.
- o Causes of Failure of Protective Works, Prevention, Maintenance and Repairs.
- o Inspection of Drainage Structures and Protective Works.

#### TRAINING METHODOLOGY

Lectures

Class Discussions

Case Studies

Video Tapes by International Road Federation

#### TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Road Planner and the Training Specialist before conducting the course.

### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the CCSC Road Planner and his team of Civil Engineers. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

### CLOSE SUPERVISION AND MONITORING

Course will be supervised and monitored by the CCSC Road Planner and his team of Civil Engineers. They will also evaluate the trainees and faculty performance.

## 6.7 . SOIL MECHANICS COURSE

<u>TITLE</u>	Soil Mechanics Course
<u>COURSE NO</u>	DL - 7
<u>PARTICIPANTS</u>	District Engineers, Sub-Divisional Officers (Engineers) and Sub-Engineers
<u>NUMBER OF PARTICIPANTS</u>	About 65
<u>DURATION</u>	One Week
<u>NUMBER OF TRAINEE GROUPS</u>	Three trainees groups of about 20 each

### TRAINING OBJECTIVES

Upon completion of this course, the participants should be:

- o Capable of classifying common types of soils existing in Sind.
- o Capable of utilizing field and laboratory methods of testing soils especially in relation to the properties important to sub-grade and shoulders' formation and compaction.
- o Capable of describing the mechanics, the theory and the practice of compaction of road sub-grades.
- o Capable of making time, effort and cost calculations for compaction tasks.
- o Capable of utilizing the most appropriate method and equipment for a given compaction task.
- o Capable of planning compaction activities in the right sequence.
- o Capable of supervising compaction activity.
- o Capable of testing the compaction of a given sub-grade in relation to the specifications given in the contract.

## OUTLINE SYLLABUS

1. Elements of Soil Mechanics as related to sub-grade and road shoulders construction and compaction; soil description, liquid and plastic limits, index of plasticity, optimum moisture content, dry density, California Bearing Ratio (CBR), sieve analysis.
2. The theory, practice, standards and specification of compaction.
3. Field and Laboratory Methods for Soil Testing and Compaction.
4. Characteristics, Capabilities and Usage; Operation and Maintenance of Compaction Equipment.
5. Calculation of Time, Effort and Cost (human & equipment) required.
6. Causes of Sub-grade failure, its Effects, Prevention and Remedies.

## TRAINING METHODOLOGY

Lectures

Class Discussions

Case Studies

## TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Road Planner and the Training Specialist before conducting the course.

### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the Road Planner and his team of Civil Engineers. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

### CLOSE SUPERVISION AND MONITORING

Course will be supervised and monitored by the CCSC Road Planner and his team of Civil Engineers. They will also evaluate the trainees and faculty performance.

## 6.8 PREPARATION OF ESTIMATE DOCUMENTS

<u>TITLE</u>	Preparation of Estimate Documents Course
<u>COURSE NO</u>	DL - 8
<u>PARTICIPANTS</u>	District Engineers, Sub-Divisional Officers (Engineers) and Sub-Engineers
<u>NUMBER OF PARTICIPANTS</u>	About 65
<u>DURATION</u>	One Week
<u>NUMBER OF TRAINEE GROUPS</u>	Three trainees groups of about 20 each

### TRAINING OBJECTIVES

Upon completion of this workshop the participants should be able to:

- o Check that they have all the data on the work to be estimated.
- o Apply departmental specifications to the work.
- o Prepare detailed bills of quantities.
- o Prepare estimates based on the bills of quantities.

### OUTLINE SYLLABUS

1. Design Data, Plans and Sections required for Estimating.
2. Standard Specifications Applicable to Rural Roads.
3. Schedule of Rates, Labour Rates, Material Rates; Item and Composite Rates; Preparation of Star Rates; Rate Analysis.
4. Documents for Estimation, Standard Formats, Requirements and Method of Preparation.
5. An exercise in preparation of Estimate Documents.

## TRAINING METHODOLOGY

Lectures

Class Discussions

Case Studies

Practical Exercise

## TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Road Planner and the Training Specialist before conducting the course.

## TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the CCSC Road Planner and his team of Civil Engineers. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

## CLOSE SUPERVISION AND MONITORING

Course will be supervised and monitored by the CCSC Road Planner and his team of Civil Engineers. They will also evaluate the trainees and faculty performance.

## 6.9 BRIDGES AND CULVERTS COURSES

<u>TITLE</u>	Bridges and Culverts Courses
<u>COURSE NO</u>	DL - 9
<u>PARTICIPANTS</u>	District Engineers, Sub-Divisional Officers (Engineers) and Sub-Engineers
<u>NUMBER OF PARTICIPANTS</u>	About 65
<u>DURATION</u>	One Week
<u>NUMBER OF TRAINEE GROUPS</u>	Three trainees groups of about 20 each

### TRAINING OBJECTIVES

Upon completion of this course, the participants should be

- o Able to explain the difference between box culverts, pipe culverts, masonry arch culverts, CGI sheets culverts and reinforced cement concrete culverts.
- o Able to supervise construction of the above enumerated culverts by contractors, in accordance with the given design and working drawings.
- o Able to supervise construction of reinforced concrete bridges by contractors, in accordance with the given design and working drawings.

### OUTLINE SYLLABUS

- 0 Bridges
  - Foundations.
  - Abutments and Wing Walls.
  - Piers.
  - Spans.
  - Roadways and Footways on Bridges.

- Area required under bridges for maximum discharge.
  - Temporary and Wooden Bridges.
  - Kerbs or Wheel Guards.
  - Parapets and Hand Rails
- o Culverts.
- Box Culverts.
  - Pipe Culverts.
  - Masonry Arch Culverts.
  - CGI Sheet Culverts.
  - Foundation & Pavement.
  - Earth Cushions.
  - Pipe Culverts under Deep Fills.

#### TRAINING METHODOLOGY

Lectures

Class Discussions

Case Studies

Video Tapes by International Road Federation

#### TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Road Planner and the Training Specialist before conducting the course.

#### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the CCSC Road Planner and his team of Civil Engineers. Where

appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

**CLOSE SUPERVISION AND MONITORING**

Course will be supervised and monitored by the CCSC Road Planner and his team of Civil Engineers. They will also evaluate the trainees and faculty performance.

6.10 DISTRICT COUNCIL FUNDS GENERATION COURSE

<u>TITLE</u>	District Council Funds Generation Course
<u>COURSE NO</u>	DL - 10
<u>PARTICIPANTS</u>	District Council Chairmen, Accounts/Taxation Officers, upto 3 selected Members of each District Council.
<u>NUMBER OF PARTICIPANTS</u>	About 70
<u>DURATION</u>	One Week
<u>NUMBER OF TRAINEE GROUPS</u>	Four trainees groups of about 20 each

TRAINING OBJECTIVES

Upon completion of this course the participants should

- o Demonstrate an improved understanding of the principles and procedures involved in legally debiting and most effectively collecting district funds.
- o Be able to describe each source and type of potential funding.
- o Be able to calculate and determine the amount due.

OUTLINE SYLLABUS

- o Identification of all legal potential sources of revenue.
- o Criteria and guidelines for determining rates and fee due the district council.
- o Improved collection and reporting procedures of tax collection contractor.
- o Contractor's obligations - limitations of authority.
- o Improved book-keeping/records procedures.

- o Methods of follow-up of delinquent persons or organizations.
- o Monitoring of tax collection contractor.

### TRAINING METHODOLOGY

Lectures.

Exercises and Case Studies.

Class Discussions.

### TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Finance and the Training Specialists before conducting the course.

### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the CCSC Finance Specialists. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

### CLOSE SUPERVISION AND MONITORING

The Finance Specialists of CCSC will supervise/monitor and evaluate the performance of the faculty and the trainees.

#### 6.11 ROAD MAINTENANCE INSPECTION & SUPERVISION COURSES

<u>TITLE</u>	Road Maintenance Inspection and Supervision Courses
<u>COURSE NO</u>	DL - 11
<u>PARTICIPANTS</u>	Sub Divisional Officers (Engineers), Sub Engineer and newly hired RMU Sub Engineers
<u>NUMBER OF PARTICIPANTS</u>	About 70
<u>DURATION</u>	One Week
<u>NUMBER OF TRAINEE GROUPS</u>	Three trainee groups of about 25 each

#### TRAINING OBJECTIVES

Upon completion of this course, the participants should

- o Be able to inspect roads to determine their condition and maintenance requirements using the criteria, standards, procedures, and formats developed.
- o Be able to prepare monthly work plans from the annual work plans and priorities of their districts.
- o Be able to assign jobs, delegate work and responsibility on road maintenance tasks to daroghas and their teams.
- o Be able to monitor and control the execution of the task with reference to time, cost and quality.
- o Be able to evaluate the task on its completion.
- o Be able to conduct on-the-job training of those whom they supervise.
- o Be able to report progress.
- o Be able to handle workers problems effectively.

## OUTLINE SYLLABUS

- o Rural Roads Inspection.
  - Criteria and Inspection for Surface and Shoulder Condition; Drainage Ditch Culverts, Bridges and Road Side Vegetation Condition.
  - Use of "Paved Road Inventory Requirements" and "Sind Road Survey, Field Survey Sheets" for Recording and Reporting of Inspections.
  - Field Exercise in Inspection, Recording and Reporting.
- o Elements of Organizational Communication.
- o Elements of Motivation and Incentives.
- o Conduct of On-the-job Training both Preplanned and Spontaneous.
- o Informal Performance Appraisal of Workers.
- o Measurement and Reporting of Progress.

## TRAINING METHODOLOGY

Lectures

Class Discussions

Case Studies

Video tapes by International Road Federation

## TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Road Planner and the Training Specialist

before conducting the course.

### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the CCSC Road Planner and his team of Civil Engineers. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

### CLOSE SUPERVISION AND MONITORING

Course will be supervised and monitored by the CCSC Road Planner and his team of Civil Engineers. They will also evaluate the trainees and faculty performance.

## 6.12 ROAD MAINTENANCE EQUIPMENT MECHANICS

<u>TITLE</u>	Road Maintenance Equipment Mechanics Course
<u>COURSE NO</u>	DL - 12
<u>PARTICIPANTS</u>	Sub Engineers (Mechanical), Foremen & Mechanics
<u>NUMBER OF PARTICIPANTS</u>	About 26
<u>DURATION</u>	3 months
<u>NUMBER OF TRAINEE GROUPS</u>	Four trainee groups of about 7 each

### TRAINING OBJECTIVES

Upon completion of this course, the participants should be able to

- o Maintain Road Maintenance Equipment, (Farm Tractors, Motor Graders and Vibratory Rollers) in Top Condition.
- o Prepare and Implement a Preventive Maintenance Schedule.
- o Conduct and/or Supervise Routine Maintenance and Minor Repairs.
- o Diagnose Malfunction.
- o Conduct Trouble Shooting and Take/initiate Appropriate Corrective Measures.

### OUTLINE SYLLABUS

- o Principles of practices of operation of all equipment.
- o Scheduling of preventive maintenance for each item in the fleet per manufacturer's handbook instructions.
- o Insuring that schedule is followed and reported properly.
- o Supervising routine equipment servicing, maintenance and minor repair operations.

- o Coordinating major repair operations carried out by contractor or central shops and negotiating contracts when necessary.
- o Diagnosing equipment malfunctions and taking appropriate action (e.g. dead-line the equipment).
- o Collecting, interpreting, and analysing data on equipment operating hours and down time to insure maximum equipment availability.
- o Preparing proper reports on equipment usage, maintenance and repairs.
- o Insuring that operator log-books are kept up-to-date and are accurate.
- o Keeping on hand an adequate supply of parts required for routine maintenance and minor repairs.

#### TRAINING METHODOLOGY

Lectures.

Exercises and Case Studies.

Class Discussions.

Practical Workshop Work.

Video Tapes by International Road Federation.

#### TRAINING MANAGEMENT

To be managed by the Training Specialist of LCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Senior Mechanical Engineer and the Training Specialist before conducting the course.

### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the CCSC Senior Mechanical Engineer. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

### CLOSE SUPERVISION AND MONITORING

Close supervision and monitoring of the course will be responsibility of the Senior Mechanical Engineer of CCSC. He will also evaluate trainee and faculty performance.

6.13 PRINCIPLES OF PUBLIC ACCOUNTING & BUDGETING COURSE - I

<u>TITLE</u>	Principles of Public Accounting & Budgeting Course - 1
<u>COURSE NO</u>	DL/PF - 13
<u>PARTICIPANTS</u>	District Chief Officers, Accounts Officers, Taxation Officers.  Local Government and Rural Development Departments officials from GOS involved in monitoring and supervision of public funds, accounting and budgeting. Members of District Council's Resource Allocation Committee.
<u>NUMBER OF PARTICIPANTS</u>	About 60
<u>DURATION</u>	Three Weeks
<u>NUMBER OF TRAINEE GROUPS</u>	Three trainees groups of about 20 each
<u>TRAINING OBJECTIVES</u>	

Upon completion of this course participants should be able to:

- o Demonstrate an ability to practice and instruct their subordinates in the principles of public accounting system including book keeping, journal and ledger entries, estimating, costing, financial aspects of inventory management, preparation of cash flow and other financial statements.
- o Demonstrate an ability to interpret and prepare annual development plan and budgeting.
- o Demonstrate an ability to calculate IRR, ROI and other project specific financial ratios and use them for making,

and/or recommending financial decisions.

- o Carry out project appraisals of proposed projects with a view to prioritizing allocation of funds.
- o Structure and use project specific tools of financial analysis.
- o Carry out academic and real-life case studies to cover application of the above topics.

#### OUTLINE SYLLABUS

- o Book Keeping/Accounting.
- o Reading Cost Estimates of Road Construction and Maintenance Activities.
- o The Accountant Cycle.
- o Preparation of Cash Flow and other Financial Statements.
- o Budgeting.
- o Financial Analysis and Financial Planning.
- o Interpretation and Preparation of Annual Development Plan.
- o Tools of Financial Analysis.
- o IRR and ROI.
- o Calculation and Utilization of Project Specific Financial Ratios in Decision Making.
- o Project Appraisal Techniques, Prioritization of Projects.
- o Financial Aspects of Inventory Management.

#### TRAINING METHODOLOGY

Lectures.

Exercises and Case Studies.

Class Discussions.

### TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Finance Specialists and the Training Specialist before conducting the course.

### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the CCSC Finance Specialists. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

### CLOSE SUPERVISION AND MONITORING

The Finance Specialists of CCSC will supervise/monitor and evaluate the performance of the faculty and the trainees.

6.14 PRINCIPLES OF PUBLIC ACCOUNTING & BUDGETING - COURSE II

<u>TITLE</u>	Principles of Public Accounting & Budgeting Course - II
<u>COURSE NO</u>	DL/PF - 14
<u>PARTICIPANTS</u>	Accountants, Auditors and Accounts Clerks of the District Councils and GDS Departments of Rural Development and Local Government.
<u>NUMBER OF PARTICIPANTS</u>	About 60
<u>DURATION</u>	Three Weeks
<u>NUMBER OF TRAINEE GROUPS</u>	Three trainees groups of about 20 each

TRAINING OBJECTIVES AND OUTLINE SYLLABUS

Same as for Course DL/PF - 10 except emphasis should shift from supervision, monitoring and guidance of subordinates to carrying out the tasks by the trainees themselves.

TRAINING METHODOLOGY

- Lectures.
- Exercises and Case Studies.
- Class Discussions.

TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Finance Specialists and the Training Specialist before conducting the course.

### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the CCSC Finance Specialists. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

### CLOSE SUPERVISION AND MONITORING

The Finance Specialists of CCSC will supervise/monitor and evaluate the performance of the faculty and the trainees.

6.15 LOCAL GOVERNMENT FINANCIAL MANAGEMENT SYSTEM AND ITS IMPLEMENTATION IN THE RRM PROJECT WORKSHOP

TITLE Local Government Financial Management System and its Implementation in the RRM Project Workshop.

COURSE NO DL/FF - 15

PARTICIPANTS Selected Chairmen, District Chief Officers and District Engineers as well as all officials of GOS Rural Development and Local Government Departments and the District Council Members responsible for and/or concerned with financial management of districts' resources.

NUMBER OF PARTICIPANTS About 60

DURATION Three Weeks

NUMBER OF TRAINEE GROUPS Three trainees groups of about 20 each

TRAINING OBJECTIVES

Upon completion of this course the participants should:

- o Demonstrate their understanding of the general principles of financial management.
- o Be able to develop and establish criteria for efficient allocation of resources.
- o Apply the above in the service of increasing the efficiency of local funds' realization and utilization.
- o Use the skills learned above in efficient allocation of resources with particular reference to transportation planning and such problems as maintenance vs rehabilitation, roads vs health and education, road rehabilitation vs new

road construction.

- o Participate in academic as well as real life case studies on revenue enhancement.
- o Be able to apply the above materials to on-going works as well as the budget process.

#### OUTLINE SYLLABUS

- o General Principles of Financial Management.
- o The Legal and Tax Environment.
- o Financial Analysis.
- o Funds Analysis and Financial Planning.
- o Budgeting and Development Planning.
- o Project Appraisal Techniques.

#### TRAINING METHODOLOGY

Lectures.

Exercises and Case Studies.

Class Discussions.

#### TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Finance Specialists and the Training Specialist before conducting the course.

#### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the CCSC Finance Specialists. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

CLOSE SUPERVISION AND MONITORING

The Finance Specialists of CCSC will supervise/monitor and evaluate the performance of the faculty and the trainees.

## 6.16 MANAGEMENT WORKSHOP

TITLE Management Workshop

COURSE NO FP - 16

PARTICIPANTS GOP officials, Joint Secretaries, Deputy Secretaries, Directors, Section Officers of MLGRD; GOS officials of equivalent grade of C&W, Local Governments, Rural Development, Planning and Development and Finance Departments.

NUMBER OF PARTICIPANTS About 40

DURATION One Week

NUMBER OF TRAINEE GROUPS Two trainees groups of about 20 each

### TRAINING OBJECTIVES

Upon completion of this course, the participants will be able to

- o Enumerate and explain the basic functions of management.
- o Apply latest managerial skills to their job environments.

### OUTLINE SYLLABUS

- o Functions of Management; Determination of Organizational Objectives, Structuring of Policy and Strategy, Direction, Control, Management of Human Resources, Innovation and Representation.
- o Managerial Skills: Communication; Decision Making, Quantitative and Analytical Methods, Organizational Leadership.
- o Application of Systems Concepts to Management; Resource Allocation, Optimization, Project Appraisal.

- o Application of Operational Research Methodology to Management; CPM and PERT, Linear Programming, Inventory Control Methods.
- o Time Management.

**TRAINING METHODOLOGY**

Lectures.

Exercises and Case Studies.

Class Discussions.

**TRAINING MANAGEMENT**

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Training Specialist before conducting the course.

**TRAINING FACULTY**

Mainly contracted faculty to be used. Some classes may be given by the CCSC Training Specialist. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

**CLOSE SUPERVISION AND MONITORING**

Training Specialist of CCSC will supervise/monitor and evaluate the performance of the faculty and the trainees.

## 6.17 FINANCIAL POLICY MAKING WORKSHOP

<u>TITLE</u>	Financial Policy Making Workshop
<u>COURSE NO</u>	FP - 17
<u>PARTICIPANTS</u>	Senior GOP officials from MLGRD, FRDEC, NTRC, National Highway Board, Joint Economic Affairs Cell, Ministry of Communication & Works and Senior GOS officials from the Department of Finance, Local Government, Rural Development, and Communication and Works.
<u>NUMBER OF PARTICIPANTS</u>	About 20
<u>DURATION</u>	Two Weeks
<u>NUMBER OF TRAINEE GROUPS</u>	One

### TRAINING OBJECTIVES

Upon completion of this workshop the participants should be able to

- o Apply the principles of transportation user costs and their relation to tax policy in real-life situations.
- o Link road user fees to some measure of the cost of provision.
- o Develop an integrated approach to transport planning taking into account the specific economies of completing transportation alternatives, (not specific to roads alone).

### OUTLINE SYLLABUS

- o The Principles of Transportation Financial Planning.
- o The Role and Importance of Transportation sector in the Economic Development at National and Provincial Levels.

- o Determination of Transportation Users Costs and its Linkages with Tax Policy.
- o Calculation of Road Users Fees as a Function of Cost Provision.
- o Benefits of an Integrated Approach to Transport Planning.

#### TRAINING METHODOLOGY

Lectures.

Exercises and Case Studies.

Class Discussions.

#### TRAINING MANAGEMENT

To be managed by the Training Specialist of CCSC through training contractors. The contractors would prepare detailed course materials, student handouts, precis and the training aids and review them with the Finance and Training Specialists before conducting the course.

#### TRAINING FACULTY

Mainly contracted faculty to be used. Some classes may be given by the CCSC Finance Specialists. Where appropriate renowned and eminent experts in their respective disciplines may be used as visiting faculty.

#### CLOSE SUPERVISION AND MONITORING

To be supervised and monitored by CCSC Finance Specialists who will evaluate the performance of the faculty and the trainees.

SECTION VII  
SPECIFICATIONS FOR MASTERS DEGREE IN USA

## SECTION VII SPECIFICATIONS FOR MASTER'S DEGREE IN USA

- 7.1 The courses outlined in Section VI refer to courses which will take place within Pakistan or for short term periods either in Bangkok or Manila in case Pakistani institutions cannot supply these courses.
- 7.2 The present section addresses the long term courses to be dispensed in the USA in view to obtaining Master's Degrees for a number of candidates. Tentatively the number of candidates have been limited to 5.

### 7.3 SPECIFICATIONS FOR MASTER'S DEGREE IN USA

7.3.1 It is necessary to improve the educational levels of key staff members who will be participating in the Sind Road Resources Management Project. This USAID sponsored project has the basic objective of upgrading both physical facilities and equipment as well as the human resources required to strengthen Rural Roads Maintenance capabilities. It will also enhance the Federal Government's road development program. The five scholarships proposed here are intended to help attain this objective by providing masters degrees to qualified staff (at least four of whom are presently working for the Sind Government) having relevant bachelor's of engineering or master's of business administration degrees. The scholarships are:

- o One Transport Engineer (Sind)
- o One Transport Economist/Financial Planner (Federal Level)
- o One Program Management (Sind)
- o Two Highway Engineers (Sind)

7.3.2 The following pages describe the types of scholarship required, the major elements of the curricula, and the basic entrance requirements for each scholarship. Since CCSC was not called to conduct a needs survey for these scholarships, it is expected that USAID/Academy of Educational Development will conduct a review of each candidate's academic achievements during his undergraduate studies.

7.3.3 In the event that it is not possible to find candidates with a TOEFL (Testing of English as a Foreign Language) of about 525-530 as specified, it is proposed that otherwise qualified candidates with a TOEFL of no lower than 500 be given an intensive week course at the USAID English Language Training Center, which should bring them up to the required 530 level.

Finally, any BS level engineers presently found working in road maintenance activities for the GOS or of the GOP should be considered for training provided they meet the other prerequisites.

7.3.4. TRANSPORT ENGINEER: (One person - Sind)

Objectives are to obtain additional technical education in the overall transport field. Key subject areas would include (but not be limited to):

- o Basic principles,
- o Policy and planning procedures,
- o Project planning, appraisal, evaluation,
- o Classification systems,
- o Transport mode analysis,
- o Highway maintenance,
- o Computer applications.

#### 7.3.4.1 Prerequisites:

- o Preferably a first division Bachelor of Engineering Degree from a recognized Pakistan University or equivalent from overseas,
- o knowledge of mathematics, surveying, and drafting is assumed for all technical scholarships,
- o At least three years of job related experience,
- o TOEFL of at least 530 provided he meets chosen University requirements,
- o Recommendations by the immediate supervisors and the head of Department in which he works,
- o Demonstrated interest in further education and adaptability to new situations,
- o Commitment under contract with the GOS to work on road resources management programs for at least six years,
- o Meeting standard government and USAID scholarship requirements.

#### 7.3.5 TRANSPORT ECONOMIST/FINANCE PLANNER: (One person - Federal)

This course should provide a broad background in the economics and financial aspects of transport planning in general with specific emphasis on the highway transport mode. Major subject areas should include (But not be limited to):

- o Capacity to increase financial resources applied to road maintenance,
- o Economic Planning - Principles and Techniques,
- o Transport costing principles,
- o Vehicle operating costs,
- o Cost/benefit analysis,
- o Techniques of resource allocation,
- o Financial aspects of project appraisal,
- o Use of the computer.

#### 7.3.5.1 Prerequisites

- o MBA from recognized Pakistan Institution or equivalent if obtained outside Pakistan
- o Three years of experience in the field in the transport economic/financial planning fields,
- o TOEFL level of at least 530 provided he meets chosen University requirements,
- o Recommendations from the immediate superiors and from the head of Department to which he is presently assigned,
- o Commitment under a contract with the GOS to spend at least six years working on road resources management programs,
- o Meeting standard government and USAID scholarship requirements.

#### 7.3.6 PROGRAMS MANAGEMENT: (One person - Sind)

The objective is to obtain additional experience at the master's degree level in management techniques broadly

applicable to the transport field. Applicant should already have been identified as a person who should eventually be at the management level in the Federal Government or in a Province. This person should be presently working for the Government of Sind. Academic areas covered would include (but not be limited to):

- o Basic principles and practices,
- o Planning, organizing, controlling, evaluating and reporting,
- o Delegation of authority/feed back,
- o Communications,
- o Personnel management & staffing,
- o Problem solving approaches,
- o Computer usages in management.

7.3.6.1 **Prerequisites:**

- o Preferably a first division MBA from recognized Pakistan University or equivalent,
- o At least three years of experience in an organization where the candidate is exposed to management practices or has managed small projects,
- o TOEFL of at least 530 provided he meets the chosen USA University requirements,
- o Recommendations from the immediate supervisors and from the Head of Department to which he is presently assigned,

- o Commitment to spend at least six years on road resources management programs,
- o Meets standard requirements of Federal Government and USAID.

7.3.7 **HIGHWAY ENGINEER:**  
(Two Required - 1 North Sind - 1 South Sind)

These candidates would be expected to receive a more detailed technical education on road building and road maintenance than the TRANSPORT ENGINEER to be sent for a scholarship. Their studies should include but not be necessarily limited to:

- o Highway Engineering Advance Course,
- o Topographic and route surveying,
- o Road plans and specifications,
- o Traffic operations,
- o Highway materials,
- o Use of computer in highway design,
- o Road Maintenance Principles,
- o Master Planner.

7.3.7.1 **Prerequisites:**

- o Preferably a first division Bachelor of Engineering Degree from a recognized Pakistan University or equivalent from overseas,
- o A knowledge of mathematics, surveying, and drafting is assumed for all technical scholarships,

- o At least three years of job related experience,
- o TOEFL of at least 530 provided he meets chosen University requirements,
- o Recommendations by the immediate supervisors and head of Department in which he works,
- o Demonstrated interest in further education and adaptability to new situations,
- o Commitment under contract with GOS to work on road resources management programs for at least six years,
- o Meets standard government and USAID scholarship requirements.

## SECTION VIII: EVALUATION OF TRAINING EFFECTIVENESS/FEEDBACK

- 8.1 Evaluation is defined as an attempt to measure how well the course or program meets its stated objectives. In RRM training, this means that the objective is based on a need; the course is designed to fulfill this need by changing the behaviour of the trainee on the job; and that the change in behaviour of the trainee on the job can be observed or measured.
- 6.2 The training activities specified in section VI do not discuss individual course evaluations because further input is required to quantify such evaluation as courses are developed by the training contractors during the implementation phase. The Training Specialist will be personally involved not only in course development but in evaluation and subsequent follow-up as well. Since most courses will be contracted, it will be most important that an evaluation plan be developed for them as well.
- 8.3 Each course or workshop described in Section VI should have this evaluation plan prepared before the course is given. The evaluation plan would be prepared by the training contractor and reviewed by CCSC's Training Specialist. Objectives of each course described must be written so that the level of their attainment can be measured.

- 0.3.1 The training program objectives must be presented in observable/measurable terms where possible.
- 8.3.2 An evaluation procedure to insure that the trainee meets these objectives upon completion of the course or project should be prepared as soon as detailed course materials are developed by the training contractor.
- 8.3.3 Questionnaire type evaluations such as the one in Appendix K where the trainee answers a list of questions, are useful to improve the effectiveness of the course and trainee receptivity, but should not be used only by themselves as evaluation instruments. The course may rate high but the impact on improved productivity may be negligible, perhaps because of other factors which need to be identified (e.g. low incentive, morale, wages, etc.).
- 8.3.4 Ultimate evaluation means measuring the sustained change of behaviour of the trainee on the job after completion of the course. A proper evaluation plan will do this. It must therefore be specially designed to fit the activity to be evaluated.
- 8.3.5 Follow-up of any course evaluation should be made after a period of time - say six months - to determine if the trainee's learning and new skills are applied and sustained in the job environment.
- 8.3.6 The foreman or supervisor of the trainee should be involved in any follow-up of the job evaluation.

#### 8.4 TRAINING AGENCY

8.4.1 Training will be conducted by Training Consultants or Contractors selected from the private sector in accordance with USAID policy on the subject. If it is discovered that there is a total lack of expertise in any particular discipline in the private sector, para-statal training organizations could be used after obtaining necessary waiver from USAID.

#### 8.5 LOCATION OF TRAINING

8.5.1 Most training will be conducted in Karachi. In case of any insurmountable constraints, training could be held any where within the Province of Sind. If not possible some training will be held anywhere in Pakistan and if this is also not possible it will be held overseas (meaning Bangkok or Manila).

#### 8.6 TRAINING LANGUAGES

8.6.1 Sindhi, Urdu and English would be the languages for conduct of training. Contractors having proficiency in all three languages would be a consideration in the award of contracts and should be given preference.

## SECTION IX: BAR CHART

- 9.1 In section VI, it will be noted that several courses apply to the same category of individuals.
- 9.2 This situation obviously raises the risk that the same individual might be scheduled to attend two courses in the same period of time.
- 9.3 In order to avoid this situation a bar chart has been prepared which is shown in the following pages.

TRAINING SCHEDULE

		1989								1990							
NO	ACTIVITIES	JULY	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	S	
		WEEK 1/2/3/4															
01	Contracting by USAID																
02	Management Workshop (2 Trainee Groups)																
03	Road Engineering Works (One Trainee Group)																
04	Road Maintenance Course (4 Trainee Groups)																
05	Engineering Survey Course (4 Trainee Groups)																
06	Contract Administration and Quality Control Course (3 Trainee Groups)																
07	Road Drainage Structure & Protective Works Course (3 Trainee Groups)																
08	Soil Mechanics Course (3 Trainee Groups)																
09	Preparation of Estimate Documents Course (3 Trainee Groups)																
10	Bridges and Culverts Course (3 Trainee Groups)																
11	District Council Fund Generation Course (4 Trainee Groups)																
12	Road Maintenance Inspection and Supervision Course (3 Trainee Groups)																
13	Road Maintenance Equipment Mechanics Course (4 Trainee Groups)																
14	Principles of Public Accounting & Budgeting Course-1 (3 Trainee Groups)																

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		1989										
		JULY	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
NO	ACTIVITIES	WEEK										
		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
15	Principles of Public Accounting & Budgeting Course-2 (3 Trainee Groups)											
16	Local Govt Financial Management System and its Implementation in RRH Project (3 Trainee Groups)											
17	Management Workshop (2 Trainee Groups)											
18	Financial Policy Making Workshop (One Trainee Group)											
19	USA Master's Training Program											



## SECTION X: BUDGET

10.1 The following budget was prepared as a general estimate. It is to be noted that it will be adjusted as the attendances and venues are firmed up and as the tenders are received from technically sound training contractors. Also to be noted is the fact that the cost of USA training is not included in the present budget.

### 10.2 Budget Parameters

10.2.1 No. of Courses = 17

10.2.2 Total duration of one run of all courses = 44 weeks

10.2.3 No. of Training Weeks = Courses x Course Duration in Weeks x No. of Repititions  
= 142 Weeks

10.2.4 No. of Trainees = 915

10.2.5 No. of Trainee Weeks = Courses x Course Duration x No. of Repitition x No. of Trainees on each Course Repitition.

3001 Trainee Weeks.

### 10.3 Instructional Costs

10.3.1 Cost for Preparation of Course Materials. This will be incurred only once for a series of courses.

4 Resource Persons x Rs. 1000 per Resource Person

Day x 7 Days Per Week x 44 Weeks i.e.

total duration of one run of each course:

= 4 x 1000 x 7 x 44 = Rs. 1,232,000

### 10.3.2 Cost for Conducting the Courses

#### 10.3.2.1 Tuition

4 Resource Persons x Rs. 1000 per Resource Person  
Day x 7 Days Per Week x Duration of Each Course  
in Weeks x Number of Times Each Course is to be  
repeated:

$$= 4 \times 1000 \times 7 \times 142 = \text{Rs. } 3,976,000$$

#### 10.3.2.2 Per Diem (Resource Persons)

4 Resource Persons x Rs. 500 Per Resource Person  
Day x 7 Days Per Week x Duration of Each Course  
in Weeks x Number of Times Each Course is to be  
Repeated:

$$= 4 \times 500 \times 7 \times 142 = \text{Rs. } 1,988,000$$

#### 10.3.2.3 Travel Resource Persons

4 Resource Persons x Rs.1000 Cost of Return Ticket  
x (17 + 1) Return Trips  
= Rs. 72,000

There is one unavoidable break in the course series due  
to Eid.

#### 10.3.2.4 Procurement of Land Survey and

Related Instruments and Equipment (2 Sets) Rs. 1,500,000

#### 10.3.2.5 Rental Training Premises

Rs. 1000 Per Day x 7 Days Per Week x 142 Training Weeks  
= Rs. 994,000

**10.3.2.6 Rental Training Aids**

Rs. 1000 Per Day x 7 Days Per Week x 142 Training Weeks  
= Rs. 994,000

**10.3.2.7 Printing of Course Materials and Purchase of Text Books**

Rs. 10,000 Per Week x 142 (Total No. of Training Weeks)  
= Rs. 1,420,000

**10.3.2.8 Course Stationary**

Rs. 1000 Per Week x 142 (Total Number of Training Weeks)  
= Rs. 142,000

**10.4 Participants Costs**

**10.4.1 Participants Per Diem**

Rs. 500 Per Diem x 7 Days Per Week x (Average number  
of participants on Each Course x Duration of the Course  
in Weeks x Number of times each course is repeated) i.e.  
2001 participants weeks = Rs. 7,003,500

**10.4.2 Participants Travel**

Rs. 700 Per Trip x 915 Participants  
= Rs. 640,500

10.4	<u>Total</u>	
	2.1	Rs. 1,232,000
	2.2.1	Rs. 3,976,000
	2.2.2	Rs. 1,988,000
	2.2.3	Rs. 72,000
	2.2.4	Rs. 1,500,000
	2.2.5	Rs. 974,000
	2.2.6	Rs. 974,000
	2.2.7	Rs. 1,420,000
	2.2.8	Rs. 142,000
	3.1	Rs. 7,003,500
	3.2	Rs. 640,000
		-----
		Rs. 17,962,000

Add Contingencies 10 %      Rs. 1,996,200

Grand Total                      Rs. 21,958,200

@ about Rs. 20 per US \$

US \$ 1,097,910

Say about One Million US Dollars

## SECTION XI: GUIDELINES TO TRAINING

- 11.1 Within the training program, it is believed certain guidelines will be helpful.
  
- 11.2 Appendix L, "Specifications for Preparation of Specific Training Modules", Appendix M, "Format for Participants Joining Instructions" and Appendix N, "Instructions for Conduct of In-country Training" are enclosed as general directives.

R/ RESOURCES MANAGEMENT PROJECT  
SIND PROVINCE, PAKISTAN

ACT #1391-0480-C-00-B246-00

TRAINING PROGRAM

PART 2 OF 2

APPENDICES

CONSTRUCTION CONTROL SERVICES CORPORATION  
555 New Jersey Ave N.W. Suite 201  
Washington D.C. 20001

May, 1989

## PART 2 OF 2

### APPENDICES TO THE TRAINING PROGRAM

Part 1 of 2 of the Road Resources Management Training Program should be read in conjunction with part 2. It presents a detailed program of training activities to be carried out during the period to March 31, 1991.

Part 2 of 2 "Appendices to the Training Program" supplements part 1 by providing additional specific guidelines as to how best to carry out the numerous interacting, and often complex, activities proposed in that program. Part 2, therefore is for the guidance of those assigned to activate the Training Plan.

The benefit of these appendices is that they are the first inputs in the development of an integrated RRM Training Handbook, which, as noted in Part 1 recommendations, is a long range objective of the overall Training Program.

APPENDIX A

LISTING OF KEY OFFICIALS CONTACTED

APPENDIX A

CONTACTS MADE BY THE TRAINING TEAM

Attached is a list of contacts made by the Training Officer and Advisor during the course of obtaining the necessary information to develop the RRM Training Program.

It is expected that the Training Officer will continue to maintain these contacts to ensure that planned activities are realistic and timely during the implementation phase of the program. For this reason office phones, along with city dial-in numbers, plus some addresses, are included.

APPENDIX A

LISTING OF KEY OFFICIALS CONTACTED

ISLAMABAD CONTACTS (951)

MINISTRY OF LOCAL GOVERNMENT AND  
RURAL DEVELOPMENT (MLG&RD)

Col. Shahid Hameed - Director 811741  
Mr. Zahoor Chaudhry - Asst. Director  
Federal Rural Development Engineering  
Coll. (FRDEC)

Mr. Kazmi, Deputy Secretary 824610

NATIONAL TRANSPORT RESEARCH CENTER (NTRC)

Mr. Sadiq Swati, Chief NTRC 826282

Dr. Tahir Shareef, Deputy Chief NTRC 811344

Dr. Bashir Ahmed, Deputy Chief NTRC

Dr. Tahir Masood, Consultant 811344

USAID (Islamabad)

Mr. Gene George - Chief - Office of Engineering 824071 x 322

Mr. Raja Arshad - Office of Engineering 824071 x 322

Mr. Zahid Zaheer - Chief Consultant - HRD 824071 x 246  
Address - House 2, Street 74, G-6/4

Dr. Carol Carpenter - Short Term Scholarship  
Specialist - HRD

ACADEMY FOR EDUCATIONAL DEVELOPMENT (AED)

Dr. John Tabor, Director, Management Training

Dr. Nancy Swing, Consultant

Mr. Mushlaque, Mr. Ashfaq, Mr. Talha 822906  
House 56, Street 88, G-6/3, Embassy Road 824858

CONSTRUCTION MACHINERY TRAINING CENTER (CMTC)

Col. Amjad, Director 861380

Chief Instructor

KARACHI CONTACTS (021)

USAID (Karachi)

440091-5

Mr. Robert Traister, Director

Mr. Hasan Masood, Project Manager

Mr. Laytoon Rasani, Assistant Project Manager

GOVERNMENT OF SIND HOUSING & RURAL DEVELOPMENT DEPT. (HRD)

Mr. Humayun Farshori  
Director General, (Posted out in August, 1988)

Mr. Hirza Kareem Raig 513095  
Director General (Started in August, 1988)

Mr. Farid Sheikh 515553  
Assistant Director, Rural Development

GOVERNMENT OF SIND PLANNING AND DEVELOPMENT DEPARTMENT

Mohammad Ali Hashkhally 515263  
Director, Monitoring and Evaluation Cell

NATIONAL INSTITUTE OF PUBLIC ADMINISTRATION (NIPA)

Ms. Shahnaz S. Hamid 463038  
Deputy Director

Dr. Asfar Rizvi 467738  
Chief Consultant

HYDERABAD CONTACTS (0221)

Mr. Abdul Hameed Rajput, Director Tech. 84286  
Mr. Mohammad Usman Nemon, XEN RD 82089

Mr. Anwar Ali Samejo 26764  
Director, Local Government 26462

Mr. Mohammad Ayub Baluch 26072  
Director, Rural Development

Mr. Noor Mohammad Sayal 250  
Director Tando Jam  
Sind Local Government and (No direct dialing)  
Rural Development Academy at Tando Jam

**DISTRICT THARPARKAR AT MIRPURKHAS** (023)

Chairman: Mr. Ghulam Rasul Junejo 2083  
Chief Officer: Mr. Ghulam Hussain Junejo 3396

**DISTRICT KHAIRPUR** (0792)

Chairman: Pt. Syed Sadruddin Shah Rashdi  
(Ph. Res: 545678 Karachi)

Chief Officer: Mr. Muntaz Husain Dharrojo

District Engineer: Mr. Habibullah Sheikh

District Council Tel: 2416, 2506, 2738

**DISTRICT NAWABSHAH** (0241)

Chairman: Syed Ghulam Mustafa Shah

Chief Officer: Mr. Habibullah Memon

District Engineer: Mr. Mohammad Qadir Jam

Tel: 2210, 3685

APPENDIX E

DISTRICT SURVEY QUESTIONNAIRE (FORM)

## APPENDIX B

### ROAD RESOURCES MANAGEMENT PROGRAM-DISTRICT SURVEY QUESTIONNAIRE

#### INTRODUCTION

The objective of the district level survey is to identify the existing number and qualifications of each Sind district's staffing that are or will be assigned to Rural Road Maintenance activities.\*

The data obtained from this survey will provide inputs into a planned long range training program to improve the productivity and effectiveness of the road maintenance work in each district. It will identify strong points, gaps in capabilities where certain types of training are needed, and allow CCSC to prepare a practical and realistic overall Training Program involving rural road maintenance activities of all districts in Sind.

This survey consists of two parts: 11

#### 1. Management Survey

A questionnaire to be filled out through discussions with each District's Senior Staff members. This questionnaire will give CCSC an overall understanding of the District's plans and priorities, existing problems, and its current and projected road maintenance operational program.

---

\* These activities are described on page 103.

11 A copy of this appendix was left with each District Engineer contacted (Sindhi and English).

## **2. Road Maintenance Staffing Survey**

This survey will be done on a single sheet which will list each person - from district engineer to beldar - that presently works on the District's rural roads.

Information will include hiring & grade data, literacy, past education, and work experience.

A consolidation and analysis of data for a sample of Sind's 13 districts will provide CCSC with the necessary information to identify common and unique training needs and to develop appropriate courses to meet these needs.

Sind will, as result of the Rural Roads Resource Management Project, be in a position to serve as a national model for eventually expanding a structured Rural Road Maintenance Program throughout the country.

## DEFINITIONS

### ROUTINE ROAD MAINTENANCE

This covers continuous work on both paved and unpaved roads.

Major activities included in routine maintenance are:

- o Pothole patching - paved roads
- o Base repair - paved roads
- o Spot sealing - paved roads
- o Shoulder patching - paved roads
- o Light grading - gravel/hatcha roads
- o Slope maintenance
- o Bridge and culvert repairs
- o Ditch and culvert cleaning
- o Signs repair or replacement
- o Vegetation control

### PERIODIC ROAD MAINTENANCE

- o Resurfacing - paved surfaces
- o Heavy grading - unpaved surfaces
- o Regraveling - unpaved surfaces

### EMERGENCY ACTIVITIES

- o Removal of land slide and flood debris
- o Cleanup & sanding of oil slicks after accidents & patching if necessary
- o Major bridge & culvert repair (contractors)

ROAD RESOURCES MANAGEMENT PROJECT

DISTRICT ENGINEER QUESTIONNAIRE \*

GENERAL

District No. \_\_\_\_\_ Name \_\_\_\_\_

Total Technical Staff \_\_\_\_\_ (See attached sheet for details).

Annual Budget current fiscal year \_\_\_\_\_

Allocated to Capital Expenditures \_\_\_\_\_

Allocated to Road Maintenance \_\_\_\_\_

A. PROBLEMS

1. PROVINCIAL LEVEL

- a. Degree of guidance/standards/back-up received.
- b. Degree of coordination/support received.
- c. What is key area of support needed ?
- d. What kind of reporting is required ?

2. INTER DIVISIONAL - CLOSE COORDINATION

- a. Any exchange of equipment for emergency repairs?
- b. Periodic scheduled meetings of District Engineers with Division Technical Staff ?
- c. Joint discussions on standards of quality, periodic inspections, common use of contractors and their quality.

---

\* Used for structured discussion of Routine Road Maintenance activities. Retained in Training Office Files.

3. INTER - DIVISIONAL (COORDINATION OF DISTRICT POLICIES)

- a. Equipment sharing.
- b. Providing materials.
- c. Providing guidelines and support.

B. DISTRICT LEVEL

How are Road Maintenance Activities presently scheduled?

Annual Work Plan made by whom? Is follow-up done to evaluate the Work Plan? How is budget allocated among needs?

C. How are priorities assigned? (When roads run into other districts how are priority differences resolved?)

D. What are perceived training needs in order of priority?

- o Your own & senior staff (interested in local/provincial/national seminars?)
- o Road Maintenance Units (RNUs).
- o Structured On-the-Job Training - Some classroom work.
- o Others

E. Discuss Practicality of Training/Production Unit Approach to Sind RMUs.

F. What kind of training is done now as regards Rural Road Maintenance?

G. In General do most of RMUs staff speak both Urdu and Sindhi ?

H. What is the philosophy in use of contractors ? Do any do routine maintenance ? If so - why ? ( i.e. lack of equipment, trained staff, others) Do you have records as to contractor compliance with specifications ?

o Percent o km contracted out

o Metalled \_\_\_\_\_

o Gravelled \_\_\_\_\_

o Fatcha \_\_\_\_\_

- I. What follow-up is made after sections of assigned road have had Routine Maintenance completed ?
  
- J. Any formalized pre/post inspections ? Who does it ? How is it reported ? How often ? What is typical response ?
  
- K. Budgetary restraints/controls - discuss & recommend improvements ?
  
  
  
  
  
  
  
  
  
  
- L. General discussion points.

APPENDIX C

DATA COLLECTION ON PROSPECTIVE TRAINEES

APPENDIX C

DATA COLLECTION ON PROSPECTIVE TRAINEES

1. As a follow up of CCSC's letter No. T.1188.40 dated November 14, 1988 addressed to all Chairmen, District Councils (attached for ready reference), CCSC's Training Specialist visited the following District Councils from March 14 to March 20, 1989:

- a. Sukkur
- b. Khairpur
- c. Shikarpur
- d. Jacobabad
- e. Larkana
- f. Karachi East

2. During these visits the data was collected on the trainees nominated by the District Councils in response to CCSC's above mentioned letter on a CV format (attached for ready reference) from the following who are enumerated grade wise:

a. Chairman	3
b. Vice-Chairman	3
c. Councillors	16
d. Chief Officers	6
e. Accounts Officers/ Taxation Officer	8
f. District Engineers	6
g. Sub-Divisional Officers/ Senior Sub-Engineers	5
h. Sub-Engineers	14
	-----
	61
	-----

3. While in a general sense the sample of 61 out of a total of 121 nominees (about 50 %) should be representative of the characteristics of the nominees with up to 90 to 95 % probability, the gradewise sample percentage is enumerated below for keeping in mind while determining the need for a more comprehensive survey of certain categories:

<u>Categories</u>	<u>Nominees surveyed</u> <u>Total Number of Nominees</u> X 100
a. Chairman	50 %
b. Vice-Chairman	100 %
c. Councillors	47 %
d. Chief Officers	46 %
e. Accounts/Taxation Officers	30 %
f. District Engineers	46 %
g. Sub-Divisional Officers/ Senior Sub-Engineers	71 %
h. Sub-Engineers	42 %

#### 4. Simple Characteristics

A discussion on the characteristics of the sample follows:

##### 4.1 Chairmen

4.1.1 Age: Range was from 42 to 47 with the mean lying at 45.

4.1.2 Level of Education: Varied from High School (ten years of schooling) through a bachelor's degree in humanities from a Pakistani University to a bachelor's degree in Chemical Engineering from USA.

- 4.1.3 **Language Proficiency:** In English it varied between ability to read routine notes and letters related to the business of the council and the ability to read and write, in a general sense; and speak and understand spoken English with tonal and accentual limitations to a no limit type of proficiency of the engineering graduate from abroad. All are fluent in Sindhi and Urdu.
- 4.1.4 **Experience in Public office:** Varied from 6 years to 10 years with a mean lying at 8 years but it is noteworthy that one of them had been elected a member of the Sind Provincial Legislature.
- 4.1.5 **Tenure of Present Office:** Tenure of all the three chairmen is from 1987 to 1991.
- 4.2 **Vice-Chairman**
- 4.2.1 **Age:** Varies from 45 to 57 years with the mean lying at 50 years.
- 4.2.2 **Level of Education:** Varied from a bachelor's degree in humanities through a bachelor's (honours) degree in agriculture to a double bachelor's degree holder i.e. one in humanities and one in law.
- 4.2.3 **Language Proficiency:** All can read and write freely in the English language but would have some tonal and accentual limitations in speaking and understanding. All are fluent in Sindhi and Urdu.

4.2.4 **Experience in Public Office:** Varied from 6 years to 29 years with the mean lying at about 16 years.

4.2.5 **Tenure of Present Office:** It is from 1987 to 1991 in all cases.

4.3 **Councillors**

4.3.1 **Age:** Range was from 30 years to 70 years with the mean lying at 44 years.

4.3.2 **Level of Education:** It varied from one councillor who had not even finished high school through bachelor's and master's degrees in humanities, medicine, chemistry, law and education to a barr-at-law (a Queens Council called to bar at Lincoln's Inn in London). A detailed classification as under would clarify the situation.

<u>Under Graduates</u>	<u>Bachelor's Degrees</u>	<u>Masters Degrees</u>
4	8	3
	Out of these two are Physicians and three are law graduates	Out of these one also has a law degree
	<u>Bar - at - Law</u>	
	One	

4.3.3 **Language Proficiency:** All are equally fluent in Sindhi and Urdu while 11 out of 16 have a good understanding of English and can read and write. They will however have tonal and accentual limitations in listening and speaking. One (the Bar-at-Law) will have no problems

with English. Proficiency in English of 4 undergraduates is severely restricted.

4.3.4 Experience in Public Office: It varied from 2 to 20 years as members of public bodies with the mean lying at about 9 years. One noteworthy instance is of a councillor (The Bar-at-Law) who has been a Senator of the (Federal) Senate.

4.3.5 Tenure of Present Office: It is from 1987 to 1991 in all cases.

#### 4.4 Chief Officers

4.4.1 Age: It varied from 38 to 52 years with the mean lying at 43 years.

4.4.2 Level of Education: All are at least graduates in humanities or social sciences or commerce or education. Out of these, additionally, three hold bachelor's degrees in law, one has a master's in economics and the most qualified has a masters in humanities, a bachelor's in law and a bachelor's in education.

4.4.3 Language Proficiency: All are fluent in Sindhi and Urdu. All can read and write English very well but their listening and speaking proficiency is limited by tonal and accentual constraints.

4.4.4 Experience in Public Office: Ranges from 16 to 28 years with the mean lying at 20 years.

4.5 **Accounts Officers/Taxation Officers**

4.5.1 **Age:** Varied from 30 to 53 years with the mean lying at 41 years.

4.5.2 **Level of Education:** Minimum educational level is a bachelor's degree in commerce or in humanities, one has an additional bachelor's degree in education, three have bachelor's degrees in law as well and two have master's degrees, one in humanities and one in economics.

4.5.3 **Language Proficiency:** All are fluent in Sindhi and Urdu. All have proficiency in reading, writing, speaking and understanding English but understanding and speaking is subject to tonal and accentual constraints.

4.5.4 **Experience in Public Office:** Ranges from one year to 30 years with the mean lying at 17 years.

4.6 **District Engineers:**

4.6.1 **Age:** From 35 to 59 years with the mean lying at 49 years.

4.6.2 **Level of Education:** Only one has a bachelor's degree in Civil Engineering and five hold diplomas in civil technology. One in addition to the diploma in civil technology holds a bachelor's degree in humanities and also a bachelor's degree in law.

4.6.3 **Language Proficiency:** All are fluent in Sindhi and Urdu. Diploma holders can read and write English as applied to their jobs in District Councils. The two

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graduates can read, write, speak and understand English though speaking and understanding are subject to tonal and accentual limitations.

4.6.4 **Experience in Public Office:** Varies from 13 to 40 years with the mean lying at 25 years.

4.6.5 **Knowledge of and Skills in Handling of Land Surveying Instruments:**

The response varied from admittance of some experience with dumpy level (an obsolescent instrument) during school days (but not on the job) to a candid admission of not having used any land surveying instruments at all, ever.

4.7 **Sub-Divisional officers**

4.7.1 **Age:** Varied from 26 to 53 years with the mean lying at 37 years.

4.7.2 **Level of Education:** All hold a diploma in civil technology. One, additionally, holds a bachelor's degree in humanities and a bachelor's degree in law, as well as having completed two years out of a three year course for a bachelor's in technology.

4.7.3 **Language Proficiency:** All are fluent in Sindhi and Urdu. All those holding diplomas in civil technology can read and write official correspondence, notes and instructions etc. in English. The one with two bachelor's degrees can read, write and understand English quite well but, as usual, with tonal and accentual limitations.

4.7.4 **Experience in Public Office** varied from 4 years to 25 years with the mean lying at 13 years.

4.7.5 **Knowledge of and Skills in Handling of Land Surveying Instruments:**

The response varied from admittance of some experience with dumpy level (an obsolescent instrument) during school days (but not on the job) to a candid admission of not having used any land surveying instruments at all, ever.

4.8 **Sub-Engineers**

4.8.1 **Age:** Varied from 20 to 49 years with the mean lying at 32 years.

4.8.2 **Level of Education:** One has completed only high school (ten years of schooling), 12 have diploma in civil technology and one has diploma in electrical/mechanical technology. One of the civil technology diploma holders additionally holds a master's degree in economics and another one of the civil technology diploma holders has an additional bachelor's degree in commerce.

4.8.3 **Language Proficiency** All are fluent in Sindhi and Urdu. The twelve sub-engineers who do not have more than a technology diploma (the one who has finished only high school) can read and write only as much English as their day to day conduct of work requires. The two who have bachelor's and master's degrees can read, write, speak and understand English with the usual tonal and accentual limitations.

C

4.8.4 **Experience in Public Office:** Varied from 3 years to 25 years with the mean lying at about 10 years.

4.8.5 **Knowledge of and Skills in Handling of Land Surveying Instruments:**

The response varied from admittance of some experience with dumpy level (an obsolescent instrument) during school days (but not on the job) to a candid admission of not having used any land surveying instruments at all, ever.

5. **Conclusions Drawn** The following general conclusions can be drawn from the foregoing analysis.

5.1 The level of education is higher for the Chairmen, Vice-Chairmen, Councillors, Chief Officers and Accounts/Taxation Officers category than for the technical officials i.e. District Engineers, Sub-Divisional Officers (SDOs) and Sub-Engineers.

5.2 The mean age for the eight categories considered (Chairmen, Vice Chairmen, Councillors, Chief Officers, Accounts/Taxation Officers, District Engineers, Sub-Divisional Officers, and Sub-Engineers) varies from 32 to 49 years.

5.3 The mean duration of experience for the eight categories considered varies from 9 to 25 years.

5.4 All members of all category are equally fluent in Sindhi and Urdu, though their mother tongue is Sindhi.

5.5 The proficiency in the English language is as tabulated

below (for those mentioned in Appendix C paragraph 2):

Category	No Limit Proficiency	Good Proficiency with Tone & Accent Limitations	Working Proficiency only	No Proficiency	Total
Chairmen	1	1	1	-	3
Vice-Chairmen	2	1	-	-	3
Councillors	1	11	-	4	16
Chief Officers	-	6	-	-	6
Accountants/ Taxation Officers	-	8	-	-	8
Dist. Engineers	-	2	4	-	5
Sub-Div. Engineers	-	-	5	-	5
Sub-Engineers	-	-	14	-	14
	4	29	24	4	61

5.6 The tenure of all elected officials (chairmen, vice-chairmen, councillors) is from 1987 to 1991 i.e. it lies within the currency of the project.

6. **Recommendations** Based on the conclusions drawn from the sample analysis, the recommendations of UNICEF's Training Specialist are as under:

6.1 The four elected officials with "no limit" proficiency in English language should be considered for short term tours abroad i.e. USA, Thailand, Phillipines, of course subject to USAID approval and the candidates qualifications.

- 6.2 The 29 officials with "Good Proficiency with Tone and Accent Limitations" be considered for short term courses and tours at the Asian Institute of Technology, Bangkok, if the required courses are not available in Pakistan . 6.3 As the sample surveyed was about half the size of the population the numbers in 6.1, and 6.2 will be approximately doubled for the population i.e.
- 6.3.1 Short Tours in U.S.A. or Bangkok 8
- 6.3.2 Short Courses and Tours at AIT (if required) 58
- 6.4 All the officials should form part of the beneficiary group for local training which, in the case of those selected for training and tours overseas, should precede overseas training.
- 6.5 A recommendation which does NOT follow from the analysis is also being put down here. It seems nominations for training should also be sought from the local government and rural development departments of the GOS, specially because, as public servants, their positions are interchangeable with similar public servants in the district councils.



## CONSTRUCTION CONTROL SERVICES CORPORATION

USAID CONSULTANTS FOR ROAD RESOURCES MANAGEMENT PROJECT

November 14, 1988

T.1188.40

Dear Mr. Chairman,

Within the context of the Road Resources Management Project, we are now ready to start the training program as called for in the project.

In view of this, I would request your assistance in identifying the personnel that should benefit from these courses during the coming months.

As called for in the project paper, there will be two categories of trainees, namely those in the engineering division and those in the management division.

In the engineering division I would like to have the names for the following designations:

- 1 District Engineer,
- 1 Sub-Divl. Officer, if your district has such a post,
- No more than 3 Sub-Engineers.

For each one of the above functions, I would appreciate if you could also identify one person as a substitute in the event of non-availability of one trainee already identified.

In no case should the total number of trainees exceed 5 unless valid reasons justify a larger number.

In the management division, I would like to have the names for the following functions:

- Chairman of the district, if you wish to attend these courses
- The Chief Officer
- no more than 3 District Councillors
- one Accounts Officer or his Assistant.

Here again, for each one of the above functions I would appreciate if you could forward the name of one person as a substitute in the event of non-availability of the trainee identified above.

In no case should the total number of trainees exceed 6 persons unless valid reasons justify a larger number.

In order to facilitate your response, I am enclosing two blanks for each program, one of which can be retained for your records.

In order also to permit me to organize these courses expeditiously, I would be grateful if you could forward this information by December 5, 1988.

I thank you for your assistance and co-operation in this matter and remain.

Yours truly,  
**CONSTRUCTION CONTROL SERVICES CORPORATION**

J. ROBERT DEMERS  
Chief of Party

cc: Mr. Hasan Masood  
Project Manager  
USAID  
Karachi

RRM TRAINING PROGRAM

MANAGEMENT TRAINING

<u>NAMES</u>	<u>DESIGNATION</u>
1 -	Chairman, if you wish to attend these course
1 -	Chief Officer
1 -	District Councillor
1 -	District Councillor
1 -	District Councillor
1 -	Accounts Officer

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CV FORMAT

1. Name:

2. Age:

3. Level of Education:

4. Designation:

5. Proficiency in English:

Urdu:

Sindhi:

6. Experience:

7. Tenure of Office:

From:

\_\_\_\_\_  
(Date)

To:

\_\_\_\_\_  
(Date)

(For elected officials only)

8. Any other particulars related to training.

APPENDIX D

EXISTING IN - COUNTRY TRAINING RESOURCES

APPENDIX D

EXISTING IN-COUNTRY TRAINING RESOURCES

<u>S/N</u>	<u>N A M E</u>	<u>LOCATION</u>	<u>SPECIFICATION</u>	<u>CONTACT TELE.</u>
	<u>A. Private Firms</u>			
1.	Allied Engineer- Consultants	Lahore	Technical Management	873227 971057
2.	Allied Engg. Ser- vices	Karachi	Construction Machinery Utilization & Management	295371
3.	Associated Consul- ting Engineers	Lahore	Technical	873441 876361-2
4.	Baluchistan Engrg. & Consultancy Corporation	Quetta	Technical Survey	Shaheen Coach St. Off. Dr. Bano Road
5.	Engineering Consultants	Karachi	Technical Survey	435567-8
6.	Engineering Services Guild	Peshawar	Technical	50564
7.	Emmay Associates	Lahore	Technical	872791
8.	Harder Associates	Karachi	Management Financial Mana- gement	530666 522215
9.	Land Survey Corporation	Karachi	Survey	223771-2
10.	Management Asso- ciation of Pak.	Karachi	Management	531683
11.	Hyco Surveys	Lahore	Survey	877150 874092
12.	Naseer Survey and Engg. Corporation	D. I. Khan	Technical and Survey	0529/3736

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S/N	N A M E	LOCATION	SPECIFICATION	CONTACT TELE.
13.	Omag Enterprise	Karachi	Technical Management Survey	526433 526363 526420
14.	Quality Surveyors	Karachi	Survey	732855
15.	Techno-Consult	Karachi	Technical	440062-2
16.	Zaheeruddin Consultants	Karachi	Technical	430321
	<u>B. Government/ Para Statalis</u>			
17.	Academy of Edn. Planning and Management	Islamabad	Management	824492
18.	Construction Machinery Training Center (CMTC)	Islamabad	Construction Machinery Utilization & Management Operation Mechanics	861380
19.	National Logistic Cell	R-Pindi	Workshop Mechanics	68651
20.	National Trans- port Research Center	Islamabad	Management	826282
21.	Pakistan Instt. of Management	Karachi	Management	531217-8 530379
22.	Petroman	Karachi	Management	438350 435310
23.	Sind Local Govt. & Rural Develop- ment Academy	Tando Jam	Management	250 Tando Jam
24.	WAPDA Academy	Tarbela	Management	c/o Project Director Tarbla Dam

APPENDIX E

NATIONAL INSTITUTE OF PUBLIC ADMINISTRATION

(NIPA)

## APPENDIX E

### NATIONAL INSTITUTE OF PUBLIC ADMINISTRATION (NIPA)

The National Institute of Public Administration (NIPA), Karachi, was established in 1961 for in-service training of middle level officers of Government, Public Sector Corporations, Local Authorities and other para-statal organizations from throughout Pakistan.

The Institute is a semi-autonomous body registered under the Act of 1960. There is a Board of Governors which lays down policies of the Institute. It is headed by the Secretary, Establishment Division, Government of Pakistan, and includes official and non-official members. The affairs of the Institute are managed by the Director who is ex-officio member of the Board of Governors and acts as its Secretary.

#### FACULTY

The faculty of the Institute consists of Chief Instructors, Consultants, Senior Instructors, and Research Associates/ Assistants, who are qualified in their respective fields.

#### MAJOR FUNCTIONS

The Institute:

- Organizes training courses for middle level officers of government and autonomous bodies, on behalf of the government, on its own, or on request from Government organizations.
- Undertakes applied research in Public Administration and allied subjects.

- Provides consultancy services on in-service training and organization and management problems.
- Organizes conferences and seminars on various problems faced by administration in Pakistan.
- Has an effective research and publication Programme and also publishes a biannual Journal "Pakistan Journal of Public Administration;"

### COURSES

1. Advanced Courses in Administration & Development
2. Financial Administration
3. Project Planning & Management
4. Planning and Development
5. Personnel Administration
6. Essentials of Management
7. Office Management
8. Personnel & Financial Management (for Local Government Functionaries)
9. Computer Orientation

### METHODOLOGY

A variety of techniques are used for imparting the training:

- Lectures by faculty members and other eminent scholars
- Group discussions
- Panel discussions
- Case studies
- Syndicate discussions
- Role playing

- Training films & video cassettes coupled with group discussions
- Field study tour/project studies
- Research papers

#### AUDIO VISUAL AIDS

The Institute has ample audio-visual equipment to support its training programmes.

#### LIBRARY

The Institute maintains a specialised library with an extensive collection of books, periodicals, documents, and reports in all fields relevant to the various courses noted. The total collection is approximately 30,000 books.

#### LECTURE HALLS

There are four centrally air-conditioned lecture halls which are equipped with modern facilities i.e. public address system, projectors, screens, magnetic boards, etc.

#### HOSTEL

Boarding and lodging facilities are available in NIPAA Campus for participants of the courses. Thirty five persons can be comfortably accommodated at one time in the hostel. Participants of advanced courses are compulsorily required to reside in hostel.

#### TRAINING FACILITIES AVAILABLE ON RENT

A list of training facilities available on rent(with sufficient

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advance notice), is as follows:

**A. FACILITIES AVAILABLE AND RATES PAYABLE**

**THROUGH CROSSED CHEQUE IN ADVANCE**

1. Auditorium	Rs. 1,500.00 per day
2. Classroom (A.C.)	Rs. 200.00 per day
3. A.V. Equipment with material but without staff	Rs. 200.00 per day
4. A.V. Equipment without Material but with staff (for 3 hours)	Rs. 300.00 per day
5. T.V., V.C.R., and Camera (with Cameraman but without consumables)	Rs. 400.00 per day
6. Use of Video Facilities (3 hours, cost of cassettes and honorarium for staff included)	Rs. 700.00 per day
7. Syndicate Room	Rs. 50.00 per day

**B. RATES OF HONORARIA TO EMPLOYEES CONCERNED TO BE**

**PAID DIRECTLY IN CASH IN ADVANCE**

1. A.V. Assistant	Rs. 100.00 per day
2. Caretaker	Rs. 50.00 per day
3. A/C Operator	Rs. 50.00 per day
4. Helpers	Rs. 40.00 per day

**INSTRUCTIONS TO BE FOLLOWED STRICTLY**

1. The auditorium has a seating capacity of 250 persons and NIPA will not be responsible for providing additional seating.
2. No smoking is allowed in the auditorium, foyer and dining hall.

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3. The organization hiring the NIPA Auditorium will be responsible for any damages incurred during the period that the auditorium is being utilized by them.
4. No political speeches/activities are allowed within the auditorium/NIPA premises.

The facilities are very suitable and are already in use on a rental basis by the Academy of Education Development (US AID Consultants). It is proposed to use these facilities as appropriate for programs/seminars in Enachi.

NIPA, while providing the information on rental rates, forewarned that the rates are being revised and an increase of 25% to 50% may be forthcoming by September - October 1980. Even with the projected increase in rates the rental is very reasonable.

#### AUDITORIUM

A centrally air-conditioned auditorium with capacity for 250 seats is available for organizing large seminars and conferences. These facilities are also made available to sister institutions for similar purposes.

#### MULTI-PURPOSES HALL

A hall has recently been constructed for indoor games and other cultural activities.

#### MEDICAL FACILITIES

A small dispensary headed by a Medical Officer is maintained by NIPA for the benefit of its employees and trainees.

## LOCATION

The Institute is located on the University Road, Gulshan-e-Iqbal, NIPA Chowk, Karachi - 47, Pakistan. Tele 464408, 465051, 465052.

APPENDIX F

NATIONAL TRANSPORT RESEARCH CENTER

(NTRC)

## APPENDIX F

### NATIONAL TRANSPORT RESEARCH CENTER

National Transport Research Center (NTRC) is located at Block 4-B School Road, Al-Markaz E-7, Islamabad. (Tele # 826282). It was established in 1977 with a view to carrying out research and training as well as to provide consultancy services in the fields of transport planning, design, operation and maintenance; pertaining to all modes of transportation.

NTRC is part of the Federal Planning Commission and is guided by an Inter-Ministerial Commission under the Chairmanship of the Minister for Planning and Development with the members of the Commission drawn from the Ministries of Finance, Communications, Railways and Civil Aviation. The Governing Body is assisted by:

1. Research Coordination Committee,
2. Research Advisory Committee,
3. Cost Appraisal Committee.

#### Human Resources

The Center is headed by its chief, who is a Transportation Planning and Traffic Engineering Specialist and is assisted by highly qualified professionals in the disciplines of Transport Economics, Statistics, Transport Planning, Civil, Electrical, Tele Communication and Transport Engineering.

Some of these professionals are specialized in Urban Transportation, Road Transport, Railways, Transport Economics and Transport Statistics. There are a total of 17 professionals. In addition NTRC engages approximately 100 persons on contract for

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carrying out field surveys and employs a strength of 80 professionals and 100 professionals and secretarial assistance staff in the Road Research Division.

### Functions

The functions of NIRC include research, training, compilation of research specific statistical data, use of computers for data storage and analysis; collection of data using traffic counts and origin - destination surveys; data collection, research and training in highway safety; and dissemination of findings and studies in the form of publications. Additionally NIRC has, in its consultancy role, conducted 13 studies for national and international agencies, including inter-alia World Bank, Asian Development Bank, SAARC, ESCAP.

NIRC makes a sizable contribution to development of technical know how in transportation by developing and conducting a 12 week course on Transport Projects Planning, which is patterned after a similar course conducted by EDI of World Bank but is adopted completely in the local environments. This course is held once every year.

### Physical Facilities for Training

NIRC has adequate facilities for class room, participants accommodation etc. which would become ideal when the Center moves to its permanent location under construction on a 5 acre (2.0 hec) plot in Islamabad.

### Proposed Utilization on RRM Project

NIRC's accumulated experience and expertise could be a great source of data and information to the RRM Project, specially as regards the Highway Policy component of the Project. The panel F

of experts at the disposal of NTRC forms a rich human resource both for assistance in formulation of highway policies and in developing syllabi and course contents of highway policy courses and as a source of regular faculty and guest faculty for these courses.

### Conclusions

NTRC is a rich source from both the points of view of human resources and as a data bank. The RRM Project should be working in close liaison with the center in respect of:

1. development of highway policies
2. development and conduct of training on highway policy components of the Project.

APPENDIX G

NATIONAL CENTER FOR RURAL DEVELOPMENT

(NCRD)

## APPENDIX G

### NATIONAL CENTER FOR RURAL DEVELOPMENT (NCRD)

#### Introduction

National Center for Rural Development (NCRD) is an organization of the Government of Pakistan, Ministry of Local Government & Rural Development (MLGRD). It is situated at Park Road, Chak Shazad, ten kilometers from Islamabad. (tele. # 824721, 824529).

#### Aims and Objectives

NCRD aims at pre and in-service training of Government Officials related to Local Government and Rural Development Departments at Federal, Provincial, Divisional and District levels. It also trains the trainers for provincial training institutes of LG&RD. It also holds courses for Chairmen, Vice Chairmen and Councilors of the District Councils and other local councils.

#### Organization

NCRD is headed by a Director General, who is assisted by two Directors, one looking after training and administration and the other in charge of research and evaluation.

#### Training

The courses held regularly at the center are:

- Rural Development
- Institution Building for Rural Development
- Planning, Monitoring and Evaluation of Rural Development Projects
- Motivation and Social Change
- Local Leadership

- Local Social Development Planning
- Appraisal of Agricultural and Rural Development Projects  
(In collaboration with E.D.I.)
- Islamic Studies
- Special Course for Women Councilors
- Training Methods and Techniques

### Faculty

There is a faculty of 16 high-ranking government officials (ranging from Grade 17 to 20).

### Facilities

NCRD is located in a large building having a total covered area of 35,000 square feet (3500 S.M.) which stands on ten acres (4.05 Ha) of ground. It has class rooms, auditorium, conference room, library, computer rooms and offices for administrative and instructional staff.

Boarding and lodging facilities for over 40 participants are available at national rates. Accommodation arrangements are also available for resource persons. NCRD has overhead projectors, closed-circuit TV and VCR as training aids. Its library has about 5000 books and a data processing center. It has adequate transportation facilities for field trips.

### Training Program

NCRD has a busy training schedule running courses, workshops and seminars from 3 days up to 6 weeks in duration round the year. Even then there are gaps between courses which could, with due coordination, be utilized for running RRI training courses.

### Recommendations

It is recommended that the use of of NCRD facilities be considered for conducting:

1. courses for concerned officials at Federal level and also
2. for conducting district and divisional level courses of the training plan for the Provinces of Punjab and North West Frontier, under a separate training program.

APPENDIX H  
CONSTRUCTION MACHINERY TRAINING CENTER  
(CMTCC)

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## APPENDIX H

### CONSTRUCTION MACHINERY TRAINING CENTRE (CMTC)

Construction Machinery Training Centre (CMTC) is located at Pirwadhai Road, F-12, Islamabad (tele # 861500, 861513, 861627). It is a para-statal organization which has been donated by the Japan International Co-operating Agency (JICA). It was completed in 1986.

#### Organization

The CMTC functions under the control of Ministry of Communication. Headed by a Director, has a Training Wing under a Chief Instructor and an Administrative Wing under an Administrative Officer. There is a Japanese Advisory Team under a Chief Advisor who supervises 5 Japanese Advisors.

#### Training Wing

Training Wing has excellent physical facilities consisting of an auditorium and a number of conference rooms and class rooms. It is very well equipped with training aids like driving simulators, overhead and slide projectors, 8, 16 and 35 mm movie projectors, AV cassettes, VCR, closed circuit TV etc. It also has a complete ensemble for producing training films on AV cassettes including a camera, titling and editing equipment. All the physical facilities are well furnished and centrally heated or cooled.

## Training Plan

The course structure, enrolment and duration of training in the Centre are listed in the following table:

Training Course	Training period (month)	No. of trainees	No. of Courses per year	Annual output
Operator	3	40	3	120
Mechanic-I	3	20	3	60
Mechanic-II:				
Engine	5	20	2	40
Chassis	5	20	2	40

## Training Targets of Courses:

### Operator Course:

1. To provide trainees with knowledge and skill required for operation and daily maintenance of construction machinery.
2. Contents of Training:
  - a) General knowledge of construction machinery and components.
  - b) Practical training in machine operation and construction method.
  - c) Inspection and maintenance.

**Mechanic-I Course:**

1. To provide trainees with knowledge and skill required for maintenance and repairs of construction machinery.
2. Contents of training:
  - a) Handling of tools and measuring instruments.
  - b) General knowledge of construction machinery and components.
  - c) Inspection and maintenance.
  - d) Practical training in removal and installation of components.
  - e) Trouble shooting and practical training on repairs.

**Mechanic-II Course:**

1. To provide trainees with all round knowledge and skill required for maintenance, repairs and testing of construction machinery.
2. Contents of Training:

**Engine Course:**

- a) Handling of tools and measuring instruments.
- b) General knowledge of construction machinery and components.
- c) Repairs and overhauling of engines.
- d) Repairs and testing of electric circuits and fuel systems.

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- e) Engine testing, trouble shooting and adjustments.

**Chassis Courses:**

- a) Handling of tools and measuring instruments.
- b) General knowledge of construction machinery and components.
- c) Structure and repairs of electrical wiring.
- d) Structure and repairs of hydraulic systems.
- e) Trouble shooting of chassis problems.
- f) Operation of workshop equipment.

**Faculty**

All training is carried out under well qualified and experienced Pakistani and Japanese instructors. The Director of the Centre and the Chief Instructor have had long experience on projects where construction machinery was extensively used.

**Entry Qualifications**

**1. Operator Course:**

- a) To be eighteen (18) years of age and above.
- b) To be secondary School Graduate and one (1) year professional experience of construction machinery or more preferably.
- c) To have knowledge of written English.

**2. Mechanic-I Courses:**

Same as in (1) Operator Courses (a to c).

**3. Mechanic-II Courses (Engine & Chassis):**

H

- a) To be eighteen (18) years of age and above.
- b) To be a Secondary School Graduate with three (3) years of experience and above as an Assistant Mechanic, or to be an Intermediate College Graduate with one (1) year of experience and more preferably as an Assistant Mechanic.
- c) To have knowledge of written English.

#### Physical Facilities and Trainee Accommodation

##### Outline:

Owner: Ministry of Communications.

Basic Design: Japan International Cooperation Agency.

Grant Amount: 2,970,000,000 Yen = Rs. 179,471,000

(US \$ 1 = Rs. 20: x \$ 8973550)

##### Outline of the Buildings

#### 1. Administration Building

- a) Main Entrance
- b) Lounge
- c) Administration Office
- d) Library
- e) Conference Room (30 seats)
- f) Preparation Room
- g) Lecture Hall (117 seats)
- h) Director's Office
- i) Chief Adviser's Office
- j) Instructors' Room

#### 2. Training Building

H

- a) Class-rooms (4 Rooms)
- b) Simulator Room
- c) Audio Visual Room
- d) Workshops
  - Rebuild Shop
  - Machine Shop
  - Powerline Shop
  - Engine Shop
  - Chassis Shop
- e) Test Rooms
  - Fuel Injections
  - Electrical Systems
  - Hydraulic Components
  - Engines
- f) Miscellaneous
  - Shop Class Rooms
  - Sub Instructors' Rooms
  - Tools Room
  - Parts Warehouse
  - Overhead Cranes

### 3. Canteen

- a) Trainees' Dining Hall (108 seats)
- b) Staff Dining Room (24 seats)
- c) Complete Kitchen Facilities

4. Dormitory

- a) Lounge
- b) Study Room
- c) 6-Bed Rooms (17 Rooms)
- d) 1-Bed Rooms (5 Rooms)
- e) Washing Room

5. Other Facilities

- a) Construction Machinery Garages
- b) Diesel Pumping Station (19000 ltr)
- c) Gate House
- d) Maintenance Shop
- e) Elevated Water Tank

Boarding and lodging to trainees is offered on very cost effective terms and the total expense is about Rs.1250/- p.m. inclusive of tuition fees.

Organization

A self explanatory organization chart is attached.

Conclusion

CMTC is the best equipped and managed training facility in its own discipline. No other institution exists in the country offering training in construction machinery operation, maintenance and repair.

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APPENDIX I

DETERMINATION OF TRAINING POSSIBILITIES AT

NIPA, MT&RI AND MPI



C. C. S. C.

T.0289.40

MEMORANDUM

Date: February 16, 1989

From: Dr. S.M.B. Alvi, Training Specialist

To: Mr. J. Robert Demers, Chief of Party

Sub: DETERMINATION OF TRAINING POSSIBILITIES AT NIPA, MT&RI, AND PIM

Ref:

In connection with the subject matter, M. Addison, Saeed Ahmed and Dr. M. Alvi visited the public training institutions located at Karachi in the following manner:

National Institute of Public Administration (NIPA)

February 12, 1989 Mathew, Saeed, Alvi

February 16, 1989 Mathew, Alvi

Pakistan Institute of Management (PIM)

February 13, 1989 Alvi

Municipal Training & Research Institute (MT&RI)

February 13, 1989 Mathew, Alvi

NIPA (National Institute of Public-Administration)

After two meetings at NIPA which Mr. Mohammad Hassan Bhutto, the Director of NIPA, Ms. Sadiqa Salahuddin, and Mr. Dawar Hussain (both senior members of NIPA faculty Tele: 464408, 465051-2) participated it was determined that NIPA was interested in and capable of conducting the following courses:

- DL-1 Management/Supervisory Workshop (at District Level)
- DL-13A Principles of Public Accounting & Budgeting (for supervisors)
- DL-13B Principles of Public Accounting & Budgeting (for Subordinates)
- DL-13C Local Government Financial Management and its Implications in RRMP
- FP-2 Management Seminar/Workshop (at Federal/Provincial Level)

The participating NIPA faculty, however, requested that formal request in writing be addressed to the Director for a formal cost proposal. A draft letter for COF's approval and signature is therefore attached to this memo.

PIM (Pakistan Institute of Management)

Dr. M. Alvi met with Dr. Arshad Abdullah, the Director and Mr. Inam Kamal, General Manager (In-company Training) Tele: 531217-8, 537123). Even though Mr. Inam Kamal seemed enthusiastic to take on the assignment, Dr. Abdullah ruled out the possibility of their conducting any custom designed courses for anybody. He stated that he was having only 10 faculty on board compared to 20 authorized slots and was having difficulty even in meeting the demands made on him by his supervisors. He, however, said that we could nominate trainees on those regular courses whose curricula nearly approximated to our training specifications. Dr. M. Alvi, trying to salvage something out of the meeting, requested PIM to indicate which of PIM courses, in their opinion approximated to RRMP Training specifications. While PIM had a copy of RRMP Training specifications CCSC had no idea of the details of the PIM curricula. The Director agreed to comply with this and requested Mr. Inam Kamal to determine such concordance after a comparative study of the curricula and advise CCSC of the results.

As Dr. M. Alvi was coming out of the meeting he met two junior members of the staff of the office of Financial Management, US AID, Islamabad, who were attending a financial management course at PIM. On inquiry, they informed that US AID regularly used the regular training opportunities at PIM by sending 2 to 3 participants to each PIM course.

MT&RI (Municipal Training and Research Institute)

M. Addison and Dr. M. Alvi met with Mr. Khan Badshah Fayyaz, Principal of the Institute and the Civil Engineer on the faculty. (Tele: 537385). The institute works directly under the MLG&RD (who are also monitoring RRMP from GOP side). As the Institute deals with the training of local bodies' officials (though in the urban sphere), there is a lot in common with their clientele and RRM trainees, especially in the discipline of financial management. But, unfortunately, they are still passing through the mobilization stage. They have as yet only 3 instructors (including the Principal) as against an authorization of 10. There are no training aids available. They have good physical training facilities but they are meager in quantity (only one class room and one auditorium). It is considered that the institute would not be ready for full function for at least a year. Meanwhile, it is recommended that a close liaison be maintained with this Institute with a view to utilizing their expertise as and when their potential comes near to being fully realized.

Follow-up on Dr. M. Alvi's visit to National Center for Rural Development (NCRD)

As reported vide memo No. T.0289.09 dated February 5, 1989, NCRD had requested to be approached through MLG&RD in order to give an official response to our training needs as well as their cost proposals. Reference to a draft letter to US AID is attached to this memo for COP's approval and thereafter signature.

CC: Mr. Saeed Ahmed, General Manager  
Mr. Matthew Addison, Finance Specialist

Draft

February 16, 1989

T.0289.

Mr. Hasan Masood  
Project Manager  
RRM Project  
US AID  
Karachi

Dear Mr. Masood,

As recommended by you I sent our Training Specialist to National Center for Rural Development (NCRD), Islamabad to explore their capability and willingness, to participate in our training program and also to determine the extent of their possible participation.

Dr. Alvi met with the Director General of the Center, Mr. Rafiq Ahmad and with other members of his staff/trainers. While the staff/trainers were able to indicate (informally) their interest and capabilities, the Director General insisted that he would give no consideration to the proposition unless he gets a directive to the effect from MLG&RD. When Alvi discussed this with Colonel Shahid Hameed at the Ministry Colonel Hameed stated that issue of such a directive would be possible on receipt of a request from US AID.

I am, therefore, requesting you to approach MLG&RD for issue of a letter to NCRD to entertain our proposal for utilization of their services in conducting training under RRMP.

Thank you for your assistance and co-operation in this matter.

Yours truly,  
**CONSTRUCTION CONTROL SERVICES CORPORATION**

J. ROBERT DEMERS  
Chief of Party

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Draft

February 16, 1989

T.0289.

The Director  
National Institute of Public Administration  
Karachi.

Dear Mr. Bhutto,

I am writing this with reference to the meeting which Mr. Saeed Ahmed, Mr. Mathew Addison and Dr. Alvi of our team had with you and your faculty on February 12, 1989 and which was followed up by another meeting on February 15, 1989.

I express my thanks for the interest taken by you and your trainers in our proposition and take this opportunity to formalize our request. CCSC is interested in having the courses DL-1, DL-13A, B, C, and FP-2 as described in our Training Plan (copies already handed over to you) conducted by NIPA. I shall be grateful if you could kindly confirm your ability and willingness to undertake this assignment. Also please indicate the time frame which suits NIPA, and the costs (with detailed break down) for conducting this training.

Thank you for your assistance and co-operation in this matter.

Yours truly  
CONSTRUCTION CONTROL SERVICES CORPORATION

J. ROBERT DEMERS  
Chief of Party

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APPENDIX J, J1, J2, J3

TRAINING AIDS/EQUIPMENT REQUIREMENTS

TANDO JAM

APPENDIX J-1

TRAINING AIDS/EQUIPMENT REQUIREMENTS  
(TRAINING OFFICE/TANDO JAM ACADEMY)

J-1

TRAINING AIDS/EQUIPMENT REQUIREMENTS

Item No.	Description	Quantity	Specification
1.	Overhead Projector, two fans instant on/off thermal switch	2 each	230 Volts 50 cycle single phase
	<u>Accessories</u>		
	- Two way writing roll attachment	2 each	-
	- Heavy duty re-usable acetate rolls	2 each	50 Feet (boxed)
	- Replacement Lamps	40 each	600 watts/230 volts 75 hour life
	- Card Frames	4 boxes	10"x10" box of 50 each
	- Poly chrome transparency marker assortment	20 each	4 colors
	Brand Name: BUHL C/N 335907 Model 80/14 or equivalent	20 each	- Medium
2.	Mounted Projection Screen Brand Name: Broadhead Garret or equivalent Model B, No.418542	1	Glass beaded 60"x60" with cam lock roller system
3.	Extension Wall Brackets for Screen Brand Name - Broadhead Garrett - No.6 C/N 418510 or equivalent	1 Pair	Non adjustable 6" extension
4.	Oak Frame wall mounted chalk board Brand Name: Mc. Master Carr Model 5720 T 25 or equivalent	1 each	120"x48" Green

Item No.	Description	Quantity	Specification
5.	Metal Storage cabinet Brand Name:Mc Master Carr C/N 4587 T/5 or equivalent	1 each	78" high; 36" wide grey-full locking shipped knocked down
6.	Portable and Reversible Combination White Board/ Magnetic Board  (Purchased Locally)	2	White Magnetic on one side soft board on other
<b><u>Books/Subscriptions</u></b>			
1.	Foreman's Handbook Author: Carl Heyel Publisher:Mc Graw Hill	30 each	-
2.	American Society for Training & Development (ASTD) Two year membership P.O.Box # 14190 Ben Franklin Station Washington,D.C. 20024		-
3.	ASTD Training Handbook obtain from address above	14	-
4.	The Supervisor as an Instructor Author: Martin Broadwell Publisher: Addison Wesley Pub.Co	14	
5.	The Supervisor and on-the-job Training Author: Martin Broadwell Publisher:Addison Wesley	30	
6.	Management Development and Training Handbook Publisher: Mc Graw Hill	14	

Item No.	Description	Quantity	Specification
<b>Miscellaneous Items:</b>			
1.	Flip Chart easel Economy Presentation Easel Brand Name: Mc Master Carr C/N 5960 T 12 or equivalent	1 each	22"x36" Green writing surface
2.	Flip Chart paper Brand Name: Mc Master Carr C/N 5960 T14 or equivalent	10 pads	27"x34" 30 sheets per pad
3.	Chalk Board erasers Brand Name: Mc Master Carr C/N 5724 T13 or equivalent	8 each	2 1/4"x5" Felt
4.	Colored chalk assortment box Brand Name: Mc Master Carr C/N 1649 T1 or equivalent	4 boxes	12 assorted pieces
5.	White Chalk Brand Name: Mc Master Carr C/N 1649 T1 or equivalent	1 gross	-
6.	Chalk board maintenance cloth Brand Name: Mc Master Carr C/N 5772 TA or equivalent	4 bags	23"x19" one dozen per bag
7.	Class Room Activity and Teacher Scheduling Board Kit No. YRK - 4872 with:	2 each	White 48"x72" with 1"x2" magnetic card holders
	1. Magnetic ribbon	10 each	7/8"x30 feet
	2. Marking Pens	10 each	black
	3. Pre-spaced magnetic letters and numbers (108 letters per set)	2 sets	

Item No.	Description	Quantity	Specification
	Brand Name:Magnetic Chart System No. PMA-21 (108 characters) 1200 North Rock Hill Avenue, St. Louis Missouri 63129 or equivalent		3/4" high white on black background 108 characters per set
8.	Sindhi script typewriter (Can be obtained only from Institute of Sindhology, Hyderabad, Pakistan).	1	Mechanical
9.	Portable Video Unit consisting of VCR,TV monitor and Camera with tripod PAL system VHS format and fifty blank cassettes Sony or equivalent brand.	1	

APPENDIX J-2

UPGRADING OF TANDO JAM ACADEMY

**UPGRADING OF SIND LOCAL GOVERNMENT AND RURAL DEVELOPMENT ACADEMY  
AT TANDO JAM**

**I T E M**

**BUDGETARY ESTIMATES**

**Buildings:** (Repairs, refurbishing upgrading including installation of hostel ceiling fans, study and dining tables and chairs)

o Main Hostel	Rs. 100,000.00
o Second Hostel	Rs. 100,000.00
o Main Office and Instructional Block	Rs. 100,000.00
o Rest House as accommodation for I.Q.C. faculty or Training Office staff	Rs. 50,000.00
o Shed for Road Maintenance Training Equipment and vehicles	Rs. 50,000.00
	<hr/>
	Rs. 400,000.00

**Vehicles:**

	<b><u>Qty</u></b>	<b><u>Cost</u></b>
o Trooper (air-conditioned) (Isuzu or equivalent for faculty and training staff)	One	TBD
o Minibus with capacity for seating 25 participants for field trips (Suzuki, Toyota or equivalent)	One	TBD

**Office Equipment and Training Aids:**

o Sindhi Script Typewriter	One	TBD
o Electric Typewriter 24" roller 230 V 50 Cycle	One	TBD
o Photocopier heavy duty with reducing and enlarging function 230 V 50 cycle	One	TBD
o Overhead Projector (OHP) with capability of taking acetate roll with 25 spare bulbs 230 V 50 cycle	One	TBD
o Still Camera 35 mm for taking colour slides for training. (With 12 colour Slide films. 25 exposures Kodak or equivalent)	One	TBD

<u>I</u>	<u>T</u>	<u>E</u>	<u>M</u>	<u>Qty</u>	<u>Cost</u>
o	Air	Conditioners	for Class Rooms (Cooling Cycle only) (Amana or Equivalent) (230 V 50 Cycle)	Four	TBD
o	Refrigerators	(For Hostel Mess)	One for each Hostel (230 V, 50 cycle)	Two	TBD
o	Electric Water Coolers	(for Hostels and instructional block (230 V 50 cycle)		Three	TBD
o	Video Camera with tripod (VCR and monitor already available) PAL System VHS format Sony or equivalent (for preparation of training videos)			One	TBD

Human Resources:

o	Technician for preparing 35 mm training slides (35 mm Projector already available)	One	TBD
o	Draughtsman for preparation of Overhead Projector Slides and other charts and graphs	One	TBD
o	Operator for Video Camera	One	TBD

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This upgrading will permit the Academy to accommodate the needs for RRM Training as specified in Part I - Training Plan as well as to continue their existing programs.

APPENDIX J-3

ROAD MAINTENANCE EQUIPMENT REQUIREMENTS  
TANDO JAM ACADEMY  
ON-THE-JOB-TRAINING

## ROUTINE ROAD MAINTENANCE EQUIPMENT REQUIRED AT TANDO JAM ACADEMY

Per agreement with USAID certain basic routine maintenance equipment should be ordered early in the program so that some class room and on-the-job training can be given to the RMUs before they receive their own equipment. It is expected that the following basic equipment, which will likely be subsequently procured for each district, would suffice for training sub-engineers, daroghas and beldars in a number of routine and maintenance production activities on actual metalled, gravelled, and katcha roads. Note that the rupee amount required approximates one percent of the total estimated equipment costs for Sind's 13 districts, assuming each is fully equipped.

The equipment on the next page is proposed to be procured along with operating and maintenance manuals for items 1 through 8. Spare parts kits should be provided for 1000 hours of operation for these 8 items.

LISTING OF ROAD MAINTENANCE EQUIPMENT  
REQUIRED AT TANDO JAM ACADEMY

ITEM NO.	U N I T	TOTAL PURCHASE PRICE (Rs)	QTY.	SOURCE
1.	1.5 Ton Pick-up Truck single cab	200,000	1	All items equivalent to Sibtain Brothers Quote Ref. AB:NBH:88/1297HB: 30.04.1988 Address P.O.Box # 4225 Ghafar Chambers Abdullah Haroon Road Karachi 03
2.	1 Ton Vibrating Roller Hand Operated, engine driven	578,000	1	
3.	Farm Tractor/Trolley 60-80 HD	177,000	1	
4.	Jack Hammer, hand operated engine driven	100,000	2	
5.	Tamper compactor hand operated engine driven	130,000	2	
6.	Vibrating Plate-	380,000	2	
7.	Asphalt Sprayer 50 gallon	250,000	1	
8.	Water Tanker Trailer 200 gallon	60,000	1	
9.	Hand Tools per crew	47,200	4 sets	
10.	S. Parts (est)	200,000		
	Total Price	Rounded off		
		2,200,000		

APPENDIX K  
TYPICAL QUESTIONNAIRE  
FOR POST EVALUATION OF TRAINING PROGRAMS

## TYPICAL QUESTIONNAIRE-EVALUATION OF AFTER TRAINING PROGRAM

### INTRODUCTION

As a routine part of each training program presented by CCSC, it is planned to evaluate that program's effectiveness. The objectives of this review are several:

- o Insure that the training program truly met its stated objectives;
- o Determine whether or not all the needed information was presented clearly to the trainee so that he understands both the principles and the practical applications of those principles to solve actual problems;
- o Appraise whether or not training techniques, instructional materials, and practical field work were effective and what improvements can be made in future training programs; and
- o Finally, and most important, verify that in fact the training program provided the foundation to the trainee to perform the functions expected of him (and explicitly stated) in his future job assignments.

### INSTRUCTIONS

This questionnaire has been designed for you, the trainee, to provide answers to the above points. It should be filled out upon course completion. It does not require that you identify yourself. (You can do so if you desire.) It does require candid and constructively critical response to the noted questions. You can help future trainees by your well-considered answers. These

K

answers will be analyzed to identify major problem areas and to improve future training programs. Most questions require only checks. Space has been provided, however, for any specific comments or recommendations, which you are encouraged to make. Follow-up of the effect of this training on your actual job performance improvement will be made within three months by your supervisor. The questions start on the next page.

QUESTIONNAIRE

District \_\_\_\_\_

Function \_\_\_\_\_

Name (if you so desire) \_\_\_\_\_

In what language was tele course given \_\_\_\_\_

Name of Training Program-----

Date started ----- Date Completed \_\_\_\_\_

Total Training Hours: Theory\_\_\_\_\_ Practical\_\_\_\_\_

Job Classification of Trainee: \_\_\_\_\_

I. COURSE CONTENT - CLASSROOM:

- a. Was the technical content:  
too complex: \_\_\_\_\_about right\_\_\_\_\_too simple\_\_\_\_\_
- b. Did you understand the theory?  
always\_\_\_\_\_ usually\_\_\_\_\_ seldom\_\_\_\_\_
- c. Were the steps logically presented for easy learning?  
Yes \_\_\_\_\_not sure \_\_\_\_\_ no\_\_\_\_\_
- d. Should the theory be  
expanded \_\_\_\_\_left as it is\_\_\_\_\_reduced in scope\_\_\_\_\_
- e. Was the time allocated to theory  
too long\_\_\_\_\_about right\_\_\_\_\_too short\_\_\_\_\_
- f. Were there adequate class discussions and sufficient  
time for questions?  
too much \_\_\_\_\_about right\_\_\_\_\_ no \_\_\_\_\_
  
- g. Do you have recommendations for improving technical  
comment of courses?  
Yes \_\_\_\_\_No\_\_\_\_\_

If you answer yes, please write down your points.

COMMENTS AND RECOMMENDATIONS  
(If answer is no please explain)

**II. CONTENT OF PRACTICALS-FIELD:**

- a. Did the classroom work provide you with the basic understanding to do the related field work?

Yes \_\_\_\_\_ No \_\_\_\_\_

- b. Did the field work help you better understand the theory?

Yes \_\_\_\_\_ No \_\_\_\_\_

- c. Should there be adjustments made in the proportion of time spent in classroom vs field work?

Yes \_\_\_\_\_ No \_\_\_\_\_

**COMMENTS AND RECOMMENDATIONS:**

(If no please explain)

**III. TEACHING TECHNIQUES:**

a. Did you understand the instructor?

Always \_\_\_\_\_ usually \_\_\_\_\_ seldom \_\_\_\_\_

b. Were you given the chance to raise questions on points you did not understand at the time you wanted to?

Yes \_\_\_\_\_ sometimes \_\_\_\_\_ seldom \_\_\_\_\_

c. Were you given satisfactory answers to questions you raised?

Yes \_\_\_\_\_ usually \_\_\_\_\_ No \_\_\_\_\_

d. Were sufficient teaching aides used such as charts, graphs, case examples to explain key points?

Yes \_\_\_\_\_ usually \_\_\_\_\_ no \_\_\_\_\_

e. How could teaching techniques be improved? Please answer in space provided below:

g. Were you given sufficient handouts and supporting materials?

Yes \_\_\_\_\_ No \_\_\_\_\_

**COMMENTS AND RECOMMENDATIONS:**

(If no please explain)

IV. RELEVANCE OF TRAINING TO FUTURE WORK:

a. Did the training adequately prepare you for the work for which it was designed?

Yes \_\_\_\_\_ not sure \_\_\_\_\_ no \_\_\_\_\_

b. Do you think you can now apply the theory and practice used to accomplish the work?

Yes \_\_\_\_\_ not sure \_\_\_\_\_ no \_\_\_\_\_

c. Do you believe that future on-the-job training is needed to become completely familiar with the work?

(If so, we would appreciate your suggestions.)

Yes \_\_\_\_\_ Not sure \_\_\_\_\_ No \_\_\_\_\_

d. Was the course of value to you in regards to your future work objectives?

Yes \_\_\_\_\_ not sure \_\_\_\_\_ no \_\_\_\_\_

COMMENTS AND RECOMMENDATIONS:

(If no please explain)

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Please write down any suggestions or points you have in the space provided above.

V. SCHEDULING AND ADMINISTRATION:

a. Was classroom adequate in terms of comfort, acoustics, visibility?

Yes \_\_\_\_\_ No \_\_\_\_\_

b. Were supporting services of food, administrative support, transportation etc. adequate?

Yes \_\_\_\_\_ No \_\_\_\_\_

c. Were daily schedules known in advance and was adequate time given for preparation of assignments:

Yes \_\_\_\_\_ No \_\_\_\_\_

d. Were there adequate breaks or time intervals between lectures or exercises?

Yes \_\_\_\_\_ No \_\_\_\_\_

e. Was teaching team effective in their overall delivery?

- Prior preparation Yes \_\_\_\_ No \_\_\_\_

- Subject knowledge Yes \_\_\_\_ No \_\_\_\_

- Anticipation of trainee problems Yes \_\_\_\_ No \_\_\_\_

- Guidance in individual problems Yes \_\_\_\_ No \_\_\_\_

- Individual communications with trainee Yes \_\_\_\_ No \_\_\_\_

f. What recommendations do you have to improve the overall administration, logistics etc. ? (List below)

COMMENTS AND RECOMMENDATIONS:

(If no please explain in your own language)

## VI. FACULTY EVALUATION

Please assess the individual lecturers according to the value and importance of contents of lectures and their delivery or presentation:

Lecturers	Value & Importance of Content				Delivery or Presentation			
	Poor	Fair	Good	Excellent	Poor	Fair	Good	Excellent
1.	0	0	0	0	0	0	0	0
2.	0	0	0	0	0	0	0	0
3.	0	0	0	0	0	0	0	0
4.	0	0	0	0	0	0	0	0
5.	0	0	0	0	0	0	0	0

18. Any comments: You may write below in Sindhi, if you prefer.

VII. GENERAL COMMENTS:

Please summarize your overall impressions of this training program and give your candid opinion as to its effectiveness relevant to its stated objectives and suggest ways it can be improved. (Feel free to answer in Sindhi).

APPENDIX L  
SPECIFICATIONS FOR PREPARATION OF  
SPECIFIC TRAINING MODULES

L

## PREPARATION OF RRM SPECIFIC TRAINING MODULES

- A. An RRM specific training module will consist of the following:
1. An introduction and table of contents.
  2. A participant's manual consisting of a student's handout for each lesson. A suggested format for handouts is in Annex-A.
  3. An instructor's manual, consisting of an instructors' notes for each lesson, suggested format in Annex-B. Instructor's manual will also include three model test papers for entrance as well as final tests.
  4. A portfolio of all training aids, view graphs, transparencies, photo slides etc., to be used in training.
- B. The process of module development is outlined below:
1. USAID approves outline curricula. The start date, and duration of the course, are approved by GOS.
  2. CCSC transmits an outline curricula to the IQC contractors.
  3. GOS announces the course.
  4. Training Officer seeks nominations and personally follows up to ensure that nominees are present at the first session.
  5. IQC Contractor submits a course structure (topic-wise details of the time devoted and teaching mode adopted) to CCSC who reviews and approves the structure.

6. IQC Contractor arranges for the proposed faculty to meet CCSC representative for review and approval. Faculty to be approved in consultation with the GOS.
7. If 3,5 & 6 are approved, CCSC finalizes the delivery order and hands over related material to the chosen IQC Contractors.
8. IQC Contractor prepares the draft training module and reviews it with the CCSC representative at least four working weeks before the start of the test run (course).
9. The IQC Contractor test runs the course.
10. The Training Office ensures that registration cards, duly filled up, are received at least 72 hours before the start of the course (at least 48 hours before arrival in case of late arrivals.) They also inform the participants of the policy on payment of TA/DA.
11. The IQC contractor reviews the draft training module with CCSC representative in the light of feed back from the test run and modifies it accordingly, within a week of the end of the test run (course).
12. The IQC contractor prepares and submits specified number of copies of the finalized module within four working weeks of the date of final review (Step B 11 above).

SUGGESTED FORMAT FOR A STUDENTS HANDOUTS

1. Introduction:
  - a. Rationale
  - b. Objectives
  - c. Link up with Previous Lessons.
  
2. Core Material:
  - a. Key Points
  - b. Definitions
  - c. Detailed Treatment
  
3. Summary:
  
4. Link up with Succeeding Lessons:

SUGGESTED FORMAT FOR INSTRUCTORS NOTES

1. **Venue:** Class Room, Field Area, Laboratory, etc.
2. **References:** Books, Manuals, etc.
3. **Teaching Mode:** Lecture, Exercise, Case Study, Demonstration, Practicals, Discussions, Evaluations, Field Visits, etc.
4. Important Definitions and Concepts comprehension which are needed for testing by questions and answers.
5. Total Time Available. Sub Division of Time between topics/activities.
6. List of Other Equipment Required.
7. List of Training Aids Required.
8. Any other instructions relevant to the conduct of the lesson.

APPENDIX M  
FORMAT FOR PARTICIPANT  
JOINING INSTRUCTIONS

SUGGESTED FORMAT OF JOINING INSTRUCTIONS

TO THE PARTICIPANTS

1. Place of the Training(postal address, telephone No.)
2. Arrival & Registration
3. Duration & dates of the Course
4. Course Contents
5. Weekly & Daily Schedules
6. Course Material and Student Handouts
7. Field Training, Field Visits and Practicals
8. Evaluation of:
  - a. Course Content
  - b. Faculty
  - c. Participants
9. Course Report on Participants
10. Course Certificates
11. Policy and Rules on Payment of TA/DA
12. Punctuality and Regularity of Attendance
13. Telephone Facilities
14. Hostel Facilities
15. Medical Facilities
16. Postal Facilities
17. Banking Facilities
18. Pre-Departure Clearance

APPENDIX N

INSTRUCTIONS FOR CONDUCT OF IN-COUNTRY TRAINING

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INSTRUCTIONS FOR CONDUCT, MONITORING ADMINISTRATION AND ACCOUNTING  
OF IN-COUNTRY TRAINING

1. AIM

The aim of this paper is to advise the Training Office Personnel of CCSC on the conduct of courses and to guide them in the duties which they are expected to perform in connection with it.

2. BACKGROUND

USAID has instructed CCSC to conduct training of GOS Department of LG&RD professionals/sub professionals in courses to improve the implementation of the RRM Project.

3. CURRICULA

The curricula for the courses will be developed from the specifications given in the Training Plan.

4. NOMINATIONS

Training Officer will seek nominations of predetermined number of participants from GOS (Department of LG&RD) for each course at least four weeks before it starts.

5. CONTRACTORS (TRAINING)

The actual conduct of many courses will be contracted out or services procured as small purchase orders strictly in accordance with USAID procurement procedures.

6. SCHEDULE

Schedule of courses to be conducted to be determined based on priorities given in the Training Plan. Detailed scheduling will be done in close coordination with GOS.

7. DUTIES OF THE TRAINING OFFICER & PROGRAM ASSISTANTS

Training Officer and his staff are expected to perform the following duties in connection with each course.

8. a. Advise the GOS, District Chief Officers and District Engineers:

They will keep them informed of all developments and any changes/amendments in the programs. They will, through personal contact, get the District Councils reactions to the program as a whole and to any of its details and keep the Training Officer and the Chief of Party of CCSC informed.

b. Venue:

The training Officer will, in consultation with GOS, and the training contractors (when used) select a suitable venue for training. He should make the most economical choice possible but should not sacrifice educationally desirable characteristics (illumination, ventilation, peace and quiet, elimination of noise and disturbances, preservation of ambient temperature etc.)

c. Payment of Travel Advance/Daily Allowance(TA/DA):

The Training Officer will pay TA/DA to the participants. He will give a forecast of cash flow required for this purpose to the Financial Specialist, check and verify each participant's entitlement as per GOS rules and regulations on the subject, and make payments as per the following schedule:

- i. TA for the two-way journey at the start of the course.
- ii. DA in arrears for the past week, on the last working day of the week.

**d. Start of the Course Report(SCR):**

The Program Assistant responsible for a particular course will submit an SCR on the format attached as Annex A, to the Training Officer within 48 hours of the opening of the course.

**e. Course Final Report (CFR):**

The program Assistant responsible for a particular course will submit a CFR on the format attached as Annex B, to the Training Officer within a week after the closing of the course.

**f. Monitoring Training Activities:**

The Training Officer, and when deputed by him, the Program Assistant, will closely monitor all training activities. He will record attendance of the faculty and the participants. He will also monitor other training-related and administrative activities of the contractor and ensure the contractors' compliance with the terms of the contract.

**g. Examination and Other Evaluation Activities**

The Training Officer will closely associate himself with all participant evaluation activities such as written, oral and practical tests and ensure their fairness, accuracy and objectivity.

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**h. Training Officer's Evaluation:**

The Training Officer will carry out an evaluation of the contractor's faculty and prepare a manuscript report at the end of the course which will include recommending improvements when needed. He may also initiate a request for changing any member of the faculty if found unsuitable for the job. In that case, he would, however, be required to justify his recommendations.

**i. Course Critique:**

The Training Officer will personally administer the course critique to all the participants, after all participants' evaluation activity has been completed. The critique will be administered anonymously and will not be allowed to be handled by the contractor at any stage.

**j. Coordination with GOS:**

The Training Officer will coordinate training activities in all their stages with the GOS and the District Councils. He will give immediate information of any untoward happenings or any events other than routine to the COP.

**k. Ceremonials:**

Inauguration and graduation will be arranged by the Training Officer at the opening and closing of courses. A GOS official will usually be invited to preside. Suitable media coverage will be arranged for due

publicity and copies of publicity notices will be sent to the Karachi Office. Payment for ceremonials will be made directly by the Training Officer.

l. Contingent Expenditures:

All contingent expenditures will be authorized by the Training Officer in writing.

m. Billing and Verification of Bills:

All bills submitted by the sub-contractor will be checked by the Training Officer and COP who will endorse the verification on the bills. All expenditures on TA/DA of participants, ceremonials, rental for training space, purchase or hire of training aids, and training transport as well as contingencies, will be billed separately as business expenses.

n. Administration

Each training contractor will be responsible for making all administrative arrangements for the faculty and staff he provides. Board, lodging and transportation arrangements for participants will be their own responsibility but the Training Officer will extend his cooperation and assistance, particularly in case of those coming from outstations. Transport arrangements will usually be made by the Training Officer for participants to and from the training area, particularly if located in an out-of-the-way place that is not well served by public-transport. The expenses on this transportation will be billed separately.

START OF THE COURSE REPORT. (SCR)

1. Name of the Course
2. Duration in Weeks
3. Dates
4. Location (City)
5. Training Venue (Premises)
6. Training contractor (when used)
7. List of Faculty
8. Number of Nominations  
(Grade-wise List attached)
9. Number of Participants attending the first day:  
(List attached)
10. Number of Participants attending the second day and  
each future day (List attached)
11. Details of Opening Ceremony and Public Relations  
(With press clippings when appropriate)
12. Date-wise and Item-wise Details of Cash-flow required  
for TA/DA, Class-room rental, Transportation, and  
Ceremonial Expenditure
13. Synopsis of Entrance Test Results
14. Number of Duly Completed Registration Cards Attached

ANNEX-B

COURSE FINAL REPORT (CFR)

1. Name of the Course
2. Duration in Weeks
3. Dates
4. Location: (City)
5. Training Venue: (Premises)
6. Training Contractor (when used)
7. List of Faculty
8. Number of Participants who (Nominal Roll Attached)  
finished the Course
9. Grade-wise Distribution of Participants
10. Faculty Attendance (Spread-sheet Attached)
11. Participants Attendance (Spread-sheet Attached)
12. Synopsis of Participants' Final Evaluation  
(Details attached)
13. Synopsis of Course Critique (Critique Performae  
Attached)
14. Evaluation of Administrative Arrangements
15. Whether Certificates Awarded
16. Training Specialist's Assessment of the Course  
(Written Evaluation Attached) and Plan for Refinement
17. Training Specialist's Assessment of the Quality and  
Getup of the Students' Handouts
18. Ceremonial (Closing Ceremony)
19. Public Relations. (Press Clippings Attached)
20. Any Comments

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