

## 6-3 Basic Design of Educational Equipment

### 6-3-1 For Model Primary Schools

#### (1) Basic Policies

In the selection of the teaching materials, considerations will be made on their compatibility with the science and mathematics curricula and their effects, and care will be taken to select those products that are simple and easy to handle. Items whose uses overlap with those of others and items that are rarely used even in Japan will be excluded.

For the audiovisual equipment, those items that are easy to handle and are suited to the conditions of use will be selected.

#### (2) Investigations on Requested Items

The items requested are listed below with indications of the investigation results.

N.B.

○: to be supplied

×: unnecessary, or unsuitable at present

△: to be supplied with alteration of types/quantities

1) Teaching Kit

Item Requested	Quantity	Result
1. Insect Box	1	×
2. Insect Net	5	×
3. Killing Bottle	5	×
4. Insect Spreading Board	1	×
5. Insect Collecting Container	3	×
6. Triangular Case	5	×
7. Triangular Paper	5	×
8. Small Scissors	30	△
9. Flower Pot with Tray, Plastic	20	×
10. Plant Pressing Apparatus	1	×
11. Polyethylene Bag 240x170mm 100 pcs/pack	5	×
12. Aquarium	2	○
13. Magnifier, small size	10	△
14. Pulleys	5	△
15. Wheel & Axle	5	△
16. Dynamic Cart	1	×
17. Concave Mirror w/Stand	3	×
18. Convex Mirror w/Stand	3	×
19. Convex Lens w/Stand	3	×
20. Concave Lens w/Stand	3	×
21. Prism	3	×
22. Plane Mirror	3	×
23. Ray Reflection Experimental Set	3	△
24. Magnetic Compass Dia. 45mm	5	○
25. Bar Magnet	5	○
26. Iron Filling 500g	5	○
27. U-Shaped Magnet	5	△
28. Friction Rod Set	5	×
29. Centimeter Cubes	5	×
30. Number Quantity-Figure Magnetic Demonstrators	1	×
31. Counting Bars	5	×
32. Cube Building Blocks	5	×
33. Clock Model	1	○
34. 1-Meter Ruler	1	×
35. Liter-Measure Demonstrator	1	×
36. World Map	6	△
37. Globe	7	△
38. Map of Pakistan	6	×
39. Flag of Pakistan (2 for table, 1 big)	3	×
40. Crayon, 12-Colors	50	×
41. Crayon Board	50	×
42. Tool Kit for Sewing	1	△
43. Rain Gauge	1	○
44. Anemometer	1	○
45. Aneroid Barometer	1	○

46. Thermometer	1	△
47. Classified Specimens of Plant	1	×
48. Insect System Collections	1	×
49. Paper Filter Dia. 120mm	25	○
50. Tape Measure 2m	5	○
51. Tape Measure 50m	2	○
52. Table Scale 4kg	5	△
53. Spring Scale 2kg	5	○
54. Stopwatch	5	○
55. Magnet Type Triangle	3	○
56. Three Dimension Models	1	×
57. Laying-type Colored Pieces	1	×
58. One-digit Whole Number Calculation Exercise Cards	1	×
59. Weather Cock	1	×
60. Sundial	1	×
61. Blackboard Compass	3	○
62. Magnet Type Protractor	3	○

## 2) Audio Visual System

Item Requested	Quantity	Result
1. Public Address System Speaker, Mixer, Amplifier, Microphone, Stand, Tape Recorder, Headphone, Cable, Rack	1 set	△
2. Video Display System VHS Recorder, 27-inch TV, Cable, VHS Video Tape (60)	1 set	△
3. Overhead Projector System Projector, Screen, Stand	1 set	×
4. Monitoring Equipment 25-inch Video Monitor, VTR Video Deck	1 set	×

## 3) GENERAL EQUIPMENT

Item Requested	Quantity	Result
1. Typewriter	1	○
2. Type Desk	1	×
3. Paper Cutter	1	○
4. Weight Scale	1	○
5. Height Scale	1	○
6. Clinical Thermometer	1	△
7. Wall Clock	1	△
8. Electric Bell	1	×
9. Electric Water Cooler	1	×

### (3) Provision Plan

The following is a list of educational equipment to be supplied for each school.

N.B.

: not requested but added as necessary item

1) Teaching Kit		Quantity
Item to be supplied	Specification	per school
1. Small Scissors	L: 155mm, Stainless steel w/plastic grip	40
2. Aquarium	40cm (bath w/pump, Filtering app., heater & thermostat, bubbling unit)	2
3. Magnifier, small size	3 pcs. sliding lens Max. 10X	40
4. Pulleys	200dia. mm, Cast-iron made, 150Kg	1
5. Wheel & Axle	30, 60, 120mm $\phi$ 3 stages, Plastic w/weight (total 20g)	1
6. Magnetic Compass	45mm $\phi$ w/cover	5
7. Bar Magnet	10 $\times$ 10 $\times$ 50mm, a set of 2 magnets	5
8. Iron Filling	500g pack	5
9. U-Shaped Magnet	50 $\times$ 100mm, w/magnet keeper	40
10. Clock Model	300mm $\phi$ , wooden made, gear mechanism,	1
11. World Map	wall hanging type	2
12. Globe	320mm $\phi$ , w/metal-made stand & time display plate	2
13. Tool Kit for Sewing	17 kinds set w/case	3
14. Rain Gauge	Rain receiver (copper), bucket, Measure cylinder	1
15. Anemometer	2~60m/sec. Accessory cable 20m	1
16. Aneroid Barometer	927~1047 hpa, 125mm $\phi$	1
17. Thermometer	Indoor type, -30 to 50 $^{\circ}$ C/1 $^{\circ}$ C, w/plate	20
18. Paper Filter	125mm $\phi$	25
19. Tape Measure 2m	1mm graduation, Auto-pulling in	5
20. Tape Measure 50m	2mm/5mm both side use, Glassfiber w/coating	2
21. Table Scale 4kg	4Kg/10g	3
22. Table Scale 1kg	1Kg/5g	3
23. Spring Scale 2kg	2Kg/20g	5
24. Stopwatch	30 minute, 1/5 sec. graduation, mechanical type, w/case	5
25. Magnet Type Triangle	Set of 2 pcs. 600mm, Wooden made	5
26. Blackboard Compass	—	3
27. Magnet Type Protractor	600mm $\phi$ , Wooden made w/magnet	3
28. Compass for Student	—	40 <input type="checkbox"/>
29. Protractor for Student	—	40 <input type="checkbox"/>

2) Audio Visual System

Item to be supplied	Specification	Quantity per school
1. Public Address System	3 way Speaker Amplifier 15w w/cassette Deck, Microphone w/stand, Radio Cassette Recorder w/FM·MW·SW Tuner, Headphone, Accessories	1 set
2. Video Display System	VHS Video Tape Recorder, 25 inch TV (PAL) w/Tuner, Remote Controller, Antenna, Table, Accessories, Cassette Tape	1 set

3) GENERAL EQUIPMENT

Item to be supplied	Specification	Quantity per school
1. Typewriter	Manual type	1
2. Photocopy Machine	Table top type, A3 size	1 <input type="checkbox"/>
3. Paper Cutter	Cutting size W 390, T 35, w/stand	1
4. Weight Scale	Vertical type 100Kg/500g	1
5. Height Scale	Steel, 50-200cm/1mm	1
6. Clinical Thermometer	3 minute measure, 35-42°C	3
7. Eye Sight Test Chart	For 3m, international standard	1 <input type="checkbox"/>
8. Wall Clock (S)	Metal frame 300 $\phi$ , battery quartz	1
9. Wall Clock (L)	Metal frame 400 $\phi$ , battery quartz	1
10. Compact Camera	35mm, Dust proof, Shock proof, f=35mm	1 <input type="checkbox"/>

## **6-3-2 For Teacher Training College**

### **(1) Basic Policies**

In the selection of the teaching materials, considerations will be made on their compatibility with the training curriculum, and care will be taken to select those products that are solid and easy to handle.

#### **a) Science and mathematics**

The materials provided should correspond to the syllabi from numerals, shapes, fundamental, arithmetic, ratios, graphs, areas and volumes to plane and solid geometry, logarithm, quadratic equations, probability, differentiation and integration.

#### **b) Physics**

The materials provided should correspond to the learning of a wide range of topics including dynamic, physical measurement, physical properties, electricity, electric cells, magnetism, optics, wave motion, molecular kinetics, atomic nuclei, nuclear reaction and atomic power generation.

#### **c) Chemistry**

The materials provided should be those suitable for experiments envisaged in the syllabi, including molecular and atomic structure and composition, periodic table theory, solutions and colloids, chemical reaction and bonding, electrochemistry, energy, organic chemistry, petroleum, nucleic acid, proteins and enzymes.

#### **d) Biology**

Equipment will be provided for experiments envisaged in the syllabi, including the basic operation of microscopes, generation of life, ecology, genetics, evolution, photosynthesis, respiration, microorganisms and fermentation.

#### **e) Physical education**

Durable materials will be provided for use in teaching practice for basic sports such as table tennis, volley ball and badminton.

#### **f) Audiovisual equipment**

General-purpose, easy-to-handle equipment suited to the conditions of use at a teacher training college will be provided.

#### **g) Clerical and administrative equipment**

Ordinary, general-purpose clerical and administrative equipment will be provided. Cameras will be provided for keeping of various records and preparation of slide teaching materials. Among the vehicles requested, the mini-bus will be provided for

transportation of students for teaching practice and field trips, and a four-wheel drive van for transportation of staff for meetings with related institutions and preparation of field trips.

h) Solid, local products will be used as far as possible for the furniture.

## (2) Investigations on Requested Items

The items requested are listed below with indications of the investigation results.

N.B.

○: to be supplied

×: unnecessary, or unsuitable at present

△: to be supplied with alteration of types/quantities

### 1) Science and Mathematics Equipment

Item Requested	Quantity	Class	Result
MATHEMATICS			
1. Multiple Times Trial Experimenting	25	2~5	○
2. Five-Color Counting Bars	25	2~4	×
3. Magnet Type Numbers	25	2~4	×
4. Number Quantity Figure Magnetic	2	2	×
5. Rotary Numbers Arranging Board	2	2~5	○
6. Figure Position Explanation Board	2	2~5	○
7. Fraction Demonstrator	2	2~5	○
8. Exercise Board for Calculation	2	2~5	○
9. Transparent Two-Color Protractor	2	5~8	○
10. Transparent 360 Degree whole circle	2	5~8	○
11. Circle Area Demonstrator	2	5~8	○
12. Laying Type colored pieces	10	2~5	○
13. Liter Cases-1	5	2~5	○
14. Liter Cases-2	5	2~5	○
15. Volume and Capacity Experimenting	2	5~8	○
16. IM3 Large Visually Representing Cube	2	2~5	○
17. Basic Volume Demonstrator	2	2~8	○
18. Triangle	25	5~8	△
19. Metal Made Large Compass	10	5~8	△
20. Three Dimensional Model	2	3~5	○
21. Circle Graph Teaching Blackboard	2	2~8	○
22. Random Number Dice	5	2~5	○
23. Computer	1	2~8	×
24. Parallel Plane Demonstrator	2	2~8	○
25. Angle Demonstrator	2	6~8	○
26. Proportional Compass	2	3~5	×
27. Sum of Interior Angles Demonstrator	2	4~8	○
28. Magnet Number Arranging Board	2	2~5	×
29. Rotary Type Multiplication Exercise Board	2	2~5	○
30. Set Square	25	2~8	○
31. Calculator	25	1~8	×
32. Programmable Calculator	5	1~5	×
33. Tool Set	2	7~8	○
34. Binomial Distribution Demonstrator	2	2~5	×



PHYSICS

1. Tape Measure	2	2~8	×
2. Vernier Calipers	25	8	×
3. Micrometer Screw Gauge	25	8	×
4. Table Balance 1.	25	7~8	△
5. Table Balance 2.	25	7~8	△
6. Spring Balance 1.	25	7~8	△
7. Spring Balance 2.	25	5~8	△
8. Experimental Kit for Static Electricity	5	3~8	×
9. Stop Watch	25	3~8	△
10. Weight set	25	2~8	△
11. Table Clump Pulley	25	6~8	×
12. Collision Apparatus	2	7~8	×
13. Meter Stick	25	3~8	△
14. Pulley-1.	25	7~8	×
15. Pulley-2.	25	7~8	△
16. Wheel and Axle	2	7~8	△
17. Inclined Plane	25	7~8	×
18. Energy Conversion Demonstrator	2	7~8	×
19. Electrostatic Generator Wimshurst	2	6~8	△
20. Loyden jar separble	5	7~8	×
21. Discharger Fixed type	5	7~8	×
22. Electrician's Tool set	2	7~8	○
23. U-Shaped Magnet	25	7~8	○
24. Magnetic Compass	25	5~8	○
25. Thermometer	25	6~8	△
26. Demonstration Galvanometer	2	6~8	△
27. Plane Mirror	25	4~8	△
28. Convex Mirror	25	7~8	△
29. Concave Mirror	25	7~8	△
30. Convex Lens	25	7~8	△
31. Optical Bench	25	7~8	×
32. Iron Tripod	25	7~8	△
33. Gas Burner	25	3~8	△
34. Linear expansion tester	2	7~8	△
35. Lenses and prisms kit	2	7~8	○
36. Dynamic Energy Experiment apparatus	2	Secondary	△
37. Resonance apparatus	2	do	×
38. Calorimeter	25	do	△
39. Hypsometer	25	do	×
40. Glass Slabs	25	do	×
41. Helicle steel spring	25	do	△
42. Meter stick balance set	25	do	△
43. Support stand with lever knife edge	25	do	×
44. Lever knife edge clamp for meter	25	do	×
45. Alkali storage battery	2	do	×
46. Magnetic field creator	25	do	×
47. Spectrum tube	2	do	×
48. D.C. Voltmeter	25	do	△
49. D.C. Ammeter	25	do	△

50. AC Voltmeter	2	do	○
51. AC Ammeter	2	do	○
52. Circuit Tester-2	2	do	○
53. Universal Power House	2	do	○
54. Astronomical Direct Vision Spectroscope	5	6~8	×
55. Sun Spectrum Observer	5	7~8	×
56. Rock and Mineral Microscope Slide	5	7~8	△
57. Crystal Model	2	7~8	△
58. Hydrometer	5	7~8	×
59. Electromagnet	5	7~8	△

#### CHEMISTRY

1. Dissolved Oxygen Meter	2	8	×
2. Automatic Water Distiller	2	7~8	△
3. Direct Reading Analytical Balance	2	7~8	×
4. Table Balance	6	7~8	△
5. Electronic Balance	2	6~8	△
6. Crystal Structure Model	2	7~8	×
7. Crystal Model Kit	1	7~8	×
8. Galvanometer	2	7~8	○
9. Funnel Stand	6	6~8	△
10. Burette Stand	10	6~8	△
11. Pipette Stand	10	6~8	△
12. Vacuum Pump	1	7~8	○
13. Thermometer-1	10	2~8	△
14. Thermometer-2	2	7~8	○
15. Thermometer-3	10	7~8	△
16. Thermometer-4	2	7~8	○
17. Gas Burner for Glass Working	2	6~8	○
18. Gas Burner	10	6~8	△
19. Flask Heater	2	6~8	×
20. Portable Light	10	3~8	×
21. Circuit Tester	2	5~8	○
22. Computer	1	5~8	×
23. Cork Borer-1	5	5~8	△
24. Cork Borer-2	5	5~8	△
25. Air Pollution Analyzer	1	7~8	×
26. Hand Operated Vacuum Pump	1	7~8	×
27. Electric Drill	1	7~8	×
28. Test Tube Stand	20	3~8	○
29. Vinyl Apron. Labo-Glove. Goggle	30 each		×
		Secondary	
30. Laboratory Glassware	1 lot	2~8	○
31. Reagent and Chemicals	1 lot	2~8	○
32. Water Inspecting Kit	5	Secondary	×
33. Soil Tester	2	do	×
34. Refrigerator	1	7~8	○
35. Calculator	30	7~8	×
36. Files (Round and Triangular)	12	Secondary	△
37. Fortin Barometer	2	do	×

38. Boyles Low Apparatus	2	do	×
39. Sink Unit	1	1~8	×
40. PH Meter	2	Secondary	○
41. PH Indicator Paper	1	lot do	×

#### BIOLOGY

1. Microscope (Biological)	25	1~8	△
2. Microscope (Stereoscopic)	2	1~8	○
3. Photomicrographic camera attachment	2	1~8	×
4. Dissecting set	25	5~8	△
5. Electric Incubator	1	5~8	○
6. Refrigerator with voltage Stabilizer	1	1~8	○
7. Automatic Table Balance	5	2~8	×
8. Alcohol Lamp	25	2~8	△
9. Iron Tripod w/wire Gauze	25	2~8	△
10. Test Tube Stand	25	2~8	△
11. Pipette Stand	25	7~8	△
12. Gas Burner (National Gas or LPG)	25	2~8	△
13. Gas Burner for Glass Working	2	7~8	×
14. Magnifier	25	5~8	○
15. Automatic Water Distiller	1	7~8	×
16. Thermometer	25	2~8	×
17. Inspect Breeding Cage	1	2~8	×
18. Laboratory Glassware	1 lot	3~8	○
19. Plankton Net	1	2~8	○
20. Computer	1	5~8	×
21. Human Anatomical Model	1 set	6~8	○
22. Bacteria Model	1 lot	5~8	×
23. Microscope Slide Making Kit	5	1~8	○
24. Table for Computer	1	5~8	×
25. Balance Table	1	2~8	×
26. Microscope Cabinet	some	2~8	×
27. Chemicals	1 lot	2~8	○
28. Cabinet for Recording Paper Storage	lot	1~8	×
29. Thermometer	40	2~8	△

#### SPORTS

1. Measuring Tape Sets	3		○
2. Table Tennis (Table, Pole 2p, Net 2, Ball 12doz)	1 set		○
3. Volley Ball (Pole 2p, Net 4, Ball 10)	1 set		○
4. Badminton (Racket 12, Net 12, Shuttle 10doz)	1 set		○
5. Rounder (Bat 1doz, Stick 2doz, Ball 2doz)	1 set		○
6. Net Ball (Pole 1p, Ring 4, Net 4)	1 set		○
7. Weighing Machine	2		△
8. Stop Watch	2		○

9. Whistle	5	○
10. Spring Board	2	○
11. Skipping Rope	2 dozen	○
12. Mats Standard Size	2	○
13. Box	2	×
14. Horse	1	×
15. Javelin	4	×
16. Discus Weight 1Kg	4	×
17. Take off Board	2	○
18. Carron Board	4	×

2) Audio Visual System

Item Requested	Quantity	Result
Language Laboratory		
1. LL System for 48-Persons Control Console, Master Tape Recorder (2), Power Supply Unit, Student Tape Recorder (48), Booth (24), Headset (50), Speaker, Accessories	1 set	×
2. Video Display System Presentation Stand, 9 Inch Color Monitor (49), Video Monitor (4), Distributor	1 set	△
Multi Purpose Room Equipment		
1. Video Camera Video Camera (2), Tripod (2), Lighting Kit, Microphone (3), Curtain	1 set	×
2. Control Equipment VHS Recorder/Player, Mixer, Power Amplifier, Speaker, Cassette Tape Recorder, Video Typewriter, Presentation System, Console, Accessories	1 set	△
3. Simple Editing System Video Cassette, 14 Inch Color Monitor, Metal Tape (20), Video Cassette Tape (30)	1 set	×
4. Projection System OHP Projector, Slide Projector, 16mm Projector, Accessories	1 set	△

3) GENERAL EQUIPMENT

Item Requested	Quantity	Result
1. Typewriter	2	○
2. Photocopy Machine	1	○
3. Electric Bells	6	×
4. 4 Wheel Drive Van Type Vehicle	1	○
5. Bus	1	×
6. Mini Bus 28 Seater	2	△

4) FURNITURE & UTENCILS

Item Requested	Quantity	Result
COLLEGE		
1. Demonstration Table	1	△
2. Laboratory Table	10	△
3. Laboratory Table	10	△
4. Steel Showcase for Science Apparatus	25	△
5. Laboratory Stool	100	△
6. File Rack	17	△
7. Office Table	19	△
8. Library Table	5	△
9. Index Card Cabinet	2	×
10. News Paper Stand	2	×
11. Magazine Rack	2	×
12. Teacher Table	30	△
13. Single Desk/Drawing Desk	80	△
14. Chairs for Class Rooms	400	△
15. Tablet/Exam: Chairs	370	△
16. Study Chairs	100	△
17. Study Table	40	△
18. Green Board with Stand	30	△
19. Steel Almirah	56	△
20. Table	1	△
21. Steno Typist Table	11	△
22. Visitors Chair	50	×
23. Office Chair	106	△
24. Table for Staff Room	5	△
25. Easy Chairs	50	△
26. Confidential Box	3	×
27. File Cabinet	1	×
28. Safe for Cash	1	×
29. Office Tray	3	×
30. Waste Paper Baskets	3	×
HOSTEL		
1. Charpies (Bed)	220	△
2. Dining Table	10	△
3. Dining Chair	100	△
4. Chair (Study)	50	△
5. Study Table	50	△

6. Almirah	4	△
7. Tea Cups	220	×
8. Plate	220	×
9. Kettle	10	×
10. Degcha (L)	4	×
11. Degcha (M)	4	×
12. Donga	50	×
13. Donga Spoon	50	×
14. Daig	4	×
15. Daig Spoon	4	×
16. Tub Jasty	4	×
17. Knife	10	×
18. Ghorl (Big Plate)	60	×
19. Panja (Rice Spoon)	60	×
20. Stove Gas	2	○
21. Grinder	1	×
22. Kafgeer	5	×
23. Balti	10	×
24. Dust Bin	50	×
25. Dust Bin	4	×
26. Wiper	4	×
27. Lantern	10	×
28. Washing Machine (w.Driers)	10	△
29. Refrigerators	5	△
30. Deep Freezer	1	○
31. Electric Water Cooler	5	△

### (3) Provision Plan

The following is a list of educational equipment to be supplied.

N.B.

: not requested but added as necessary item

#### 1) Science and Mathematics Equipment

Item to be Supplied	Specification (L×D ×H)	Quantity
<b>MATHEMATICS</b>		
1. Multiple Times Trial Experimenting	Color cube type, chip·coin·disc assorted	25
2. Rotary Numbers Arranging Board	610×600mm w/stand, 1 to 100	2
3. Figure Position Explanation Board	900×600 ×15mm, Cards of 10000, 1000, 100, 10 and 1	2
4. Fraction Demonstrator	460×460 ×40mm, steel made, w/chart (5 types)	2
5. Exercise Board for Calculation	620×480mm, wooden made w/stand	2
6. Transparent Two-Color Protractor	600mm φ, Printed 2 colors	2
7. Transparent 360° Protractor	450mm φ ×3mm, Acrylic plastic	2
8. Circle Area Demonstrator	200mm φ, wooden made, w/box	2
9. Laying Type colored pieces	6 types each 4 colors 120 pcs. w/box	10
10. Liter Cases-1, 1ℓ	5 types case, with graduation	5
11. Mess Cylinder 5dl	10, 25, 50, 100, 250, 1000ml, plastic made	5
12. Volume and Capacity Experimenting	10×10×10cm Case (Plastic) & Wood cube w/graduation 1cm	2
13. IM <sup>3</sup> Large Visually Representing Cube	100 ×100 ×100cm plastic	2
14. Basic Volume Demonstrator	4 types cubes (1,2,4,8cm) total 25 pcs. w/box	2
15. Triangle	Set of 2 pcs., 600mm, wooden made	2
16. Metal Made Large Compass	540mm, Aluminum made w/5mm graduation	2
17. Three Dimensional Model	22 types, wooden made w/box	2
18. Circle Graph Teaching Blackboard	860 ×860mm, both side type, steel made	2
19. Random Number Dice	Hexahedron & icosahedron, 6 pcs.	5
20. Parallel Plane Demonstrator	420 ×230mm, wire, plate w/net	2
21. Angle Demonstrator	94mm φ ×412mm, metal	2
22. Sum of Interior Angles Demonstrator	250mm, hinged type, wooden made	2
23. Set Square	Plastic made, 12cm/1mm, 2 types/set	25
24. Tool Set	Case:320×195 ×40mm, 21 kinds/set	2

PHYSICS

1. Table Balance 1.	500g/0.5g. w/weight	9	
2. Table Balance 2.	3100g/10mg, $\pm 5\text{mg}$	1	
3. Spring Balance 1.	10 newton/0.1 newton	9	
4. Spring Balance 2.	5 newton/0.1 newton	9	
5. Stop Watch	30 minute, 1/5sec., mechanical type	9	
6. Weight set	0.5, 1, 2, 5, 10, 20, 50, 100, 200g w/case	9	
7. Meter Stick	Plastic, 1mm & inch graduation	9	
8. Pulley	Cast iron, 200mm $\phi$ , Load:150Kg	9	
9. Wheel and Axle	30,60, 120mm $\phi$ 3 stages, Plastic w/weight (total 20g)	1	
10. Electrostatic Generator Wimshurst	Wimshurst type, spark gap:80mm, manual	1	
11. Electrician's Tool set	20 kinds/set w/storage box	2	
12. U-Shaped Magnet	50 $\times$ 100mm w/magnet keeper	25	
13. Magnetic Compass	45mm $\phi$	25	
14. Thermometer	Alcohol, -5 to 105 $^{\circ}\text{C}$	9	
15. Demonstration Galvanometer	1 $\times$ 10 <sup>-6</sup> A, 1 $\times$ 10 <sup>-4</sup> V, w/tripod	1	
16. Illumination Apparatus	—	1	<input type="checkbox"/>
17. Plane Mirror	300 $\times$ 400mm, Angle adjust stand	1	
18. Convex Mirror	90mm $\phi$ , Focal length 250mm w/stand	1	
19. Concave Mirror	90mm $\phi$ , Focal length 250mm w/stand	1	
20. Convex Lens	75mm $\phi$ , Focal length 200/250/300mm w/case	1	
21. Concave Lens	75mm $\phi$ , Focal length 250mm w/stand	1	<input type="checkbox"/>
22. Iron Tripod	120mm $\phi$ $\times$ 200mm w/gauge (10 pcs./set)	9	
23. Gas Burner	W/hose 5m	9	
24. Linear Expansion Tester	160 $\times$ 110mm, Iron-copper-brass bar	1	
25. Lenses and Prisms Kit	6 kinds, 7 pcs.	2	
26. Dynamic Energy Experiment apparatus	800(H)mm, Metal made w/weight (140g & 280g)	1	
27. Calorimeter	140mm $\phi$ $\times$ 110mm w/thermometer (50/0.2 $^{\circ}\text{C}$ )	2	
28. Helicle Steel Spring	3 kinds spring, Stainless steel made	2	
29. Meter Stick Balance set	400 $\times$ 475mm, Rubber & Plastic weight	2	
30. D.C. Voltmeter	-1 to 3V, -5 to 15V, -100 to 300V	2	
31. D.C. Ammeter	-10 to 50mA, -100 to 500mA, -1 to 5A	2	
32. AC Voltmeter	0 to 15V, 0 to 150V, $\pm 2.5\%$	2	
33. AC Ammeter	0 to 1A, 0 to 10A, $\pm 2.5\%$	2	
34. Circuit Tester-2	DC Vol. & Cur., AC Vol. & Cur., Resistant, Portable type	2	
35. Universal Power House	AC 0~20V, 5A DC 0~20V, 5A	2	
36. Rock and Mineral Microscope Slide	8 rocks, 7 minerals	2	
37. Crystal Model	Boll: 169pcs. Bond: 286pcs.	1	
38. Electromagnet	120mm $\phi$ $\times$ 50	2	



## CHEMISTRY

1. Automatic Water Distiller	1.8 ℓ/h, w/consumable	1
2. Table Balance	100g/0.1g w/weight set	9
3. Electronic Balance	3100g/10mg, ±5mg	1
4. Galvanometer	1×10 <sup>-6</sup> A, 1×10 <sup>-4</sup> V, ±2.5%	2
5. Funnel Stand	440mm, Metal made	9
6. Burette Stand	600mm, Metal made	9
7. Pipette Stand	12-standing, 500mm, Plastic	9
8. Vacuum Pump	50 ℓ/min, 750rpm	1
9. Thermometer-1	Alcohol, -5~105°C	9
10. Thermometer-2	Alcohol, -30~50°C	9
11. Thermometer-3	Mercury, 0~360°C	2
12. Gas Burner for Glass Working	200mm w/foot bellows	2
13. Gas Burner	W/hose 5m	9
14. Circuit Tester	DC-V·A, AC-V·A & Resistance, Portable type	2
15. Cork Borer	6 borers	2
16. Test Tube Stand	12 standing, wooden made	20
17. Laboratory Glassware	—	1 lot
18. Reagent and Chemicals	—	1 lot
19. Refrigerator	218 liter +12 liter (chiller)	1
20. Files (Round and Triangular)	Each 200mm w/handle	5
21. PH Meter	Table-top & portable type each 1 set	2

## BIOLOGY

1. Microscope (Biological)	Eyepiece: 10X, Objective: 4, 10, 40, 100X	9
2. Microscope (Stereoscopic)	Objective: 2, 4X w/illuminator	2
3. Dissecting set	Eight type, 10 tools w/wooden box	9
4. Electric Incubator	150 ℓ, +5~60°C, ±0.5 °C	1
5. Refrigerator with voltage Stabilizer	218 liter +12 liter (chiller)	1
6. Alcohol Lamp	Capacity: 120mℓ, Glass made	9
7. Iron Tripod w/wire Gauze	120mm φ × 200mm w/gauge (10pcs./set)	9
8. Gas Burner (National Gas or LPG)	—	9
9. Test Tube Stand	12 standing type, plastic made	18
10. Pipette Stand	12 standing type, 500mm	9
11. Magnifier	13mm φ, 10X	25
12. Plankton Net	200 φ × 300mm w/bucket & handle	1
13. Human Anatomical Model	8 kinds	1 set
14. Microscope Slide Making Kit	for 100 slides w/cover glass	5
15. Chemicals	—	1 lot
16. Thermometer	Alcohol, -5~105°C	18

SPORTS

1. Measuring Tape	3
2. Table Tennis (Table, Pole 2p, Net 2, Ball 12doz)	1 set
3. Volley Ball (Pole 2p, Net 4, Ball 10)	1 set
4. Badminton (Racket 12, Net 12, Shuttle 10doz)	1 set
5. Rounder (Bat 1doz, Stick 2doz, Ball 2doz)	1 set
6. Net Ball (Pole 1p, Ring 4, Net 4)	1 set
7. Stop Watch	2
8. Whistle	5
9. Spring Board	2
10. Skipping Rope	2 dozen
11. Mats Standard Size	2
12. Take off Board	2
13. Weighing Machine	1

2) Audio Visual Equipment

Item to be Supplied	Specification	Quantity
1. Public Address System	Speaker(2) 2-way 110w w/stand, Amplifier 50w+50w. Mixer, Microphone, Radio twin Cassette Recorder w/AM·FM·SW Tuner, Headphone, Accessories	1
2. Audio Visual System	Overhead Projector 300w w/10 lumps, Slide Projector 300w/10 lumps & 100-200mm Zoom Lenz, VHS Video Tape Recorder (PAL) w/Tuner·Remotecontroller 34-inch TV(PAL) w/Tuner· Remotecontroller·Antenna·Table, Accessories	1
3. TV/VTR for Hostel	Video Tape Recorder (PAL) w/Tuner· Remotecontroller·Tape, 25-inch TV(PAL) Tuner· Remotecontroller·Antenna·Table, Accessories	1
4. Broadcasting System	Microphone w/stand, Cassette Recorder, Amplifier w/speaker Selector·mixer 120w, Wide Range Speaker(2) 15w, Wall-mounting Splashproof Speaker(4) 5w, Wall-mounting Room Speaker(26) 3w, Accessories	1

### 3) GENERAL EQUIPMENT

Item to be Supplied	Specification	Quantity	
1. Typewriter	Manual type	2	
2. Photo-copy Machine	Table top type	1	
3. Stencil Duplicating Machine	(ex. Gestetner 1520)	1	<input type="checkbox"/>
4. Scanner	(ex. Canon/Xerox)	1	<input type="checkbox"/>
5. Word Processor		1	<input type="checkbox"/>
6. Camera	Compact type 35mm, Dust Proof, Shock Proof. f=35mm	2	<input type="checkbox"/>
7. 8 Seater Van Type Vehicle		1	
8. Mini Bus 28 Seater		1	

### 4) FURNITURE & UTENCILS

Item to be Supplied	Specification (L×D ×H)	Quantity
<b>FURNITURE</b>		
1. Double Pedestal Desk	Wood, w/drawers, chipboard pressed formica top board 1800×760 ×700	1
2. Office Desk	Wood, w/drawers, chipboard pressed formica top board 1200×760 ×700	17
3. Typing Desk	Wood, w/drawers, chipboard pressed formica top board 1200×760 ×650	1
4. Table	Wood, plastic laminated top board 1200×600 ×700	62
5. Teacher's Desk	Wood, w/drawers, plastic laminated top board 1200×600 ×700	6
6. Students' Desk	Wood, w/shelf, plastic laminated top board 600×400 ×700	240
7. Hosteler's Desk	Wood, w/drawers, plastic laminated top board 1000×600 ×700	160
8. Speaker's Desk	Wood, plastic laminated top board 900×500 ×1200(1100)	1
9. Tea Table	Wood, w/shelf, plastic laminated top board 900×450 ×450	4
10. Dining Table-A	Wood, plastic laminated top board 1800×750 ×700	8
11. Dining Table-B	Wood, plastic laminated top board 1200×750 ×700	8
12. Round Table	Steel center pole, plastic laminated top board 1200 φ ×700	2
13. Cooking Table	Wood, w/drawers, on both sides, stainless steel top board 1800×900 ×800	1
14. Armchair	Wood frame, woven cane seat & back	1
15. Office Chair	Wood frame, woven cane seat & back	284
16. Students' Chair	Wood frame, shisham wood seat & back	240
17. Stacking stool	Round steel pipe legs, plastic seat 400 φ	216

18. Folding Chair	Round steel pipe frame, vinyl covered cushion seat	250
19. Easy Chair	Wood frame, cloth upholstery	1
20. Sofa	Wood frame, vinyl upholstery 1800×760 ×700 (450)	9
21. Steel Bookcase	Steel, w/double hinged glass window doors, movable 5 shelves, 900×300 ×1800	19
22. Steel Almirah	Steel, w/double hinged glass window doors & sliding flush doors, movable shelves 900×450 ×1800	25
23. Steel Locker	Steel, w/hinged flush door, 2 shelves & a hunger pipe 600×600 ×1800	13
24. Hosteler's Locker	Steel, w/hinged flush door, 2 shelves & a hunger pipe, twin type 1000×600 ×1800	80
25. Wardrobe	Wood, w/hinged flush doors, 2 shelves, a hanger pipe, drawer, 900×600 ×1800	1
26. Bed for Hostellers	Wood frame, w/cloth covered spring mat, 900×2000×900 (400)	162
27. Laboratory Table for Teacher	Wood, plastic laminated finish, Glass lit top board, w/chemical water tap-double type, ceramic sink, gas outlet, power outlet, drawers, 2400×750 ×800	3
28. Laboratory Table for Student (Chemistry, Biology)	Wood, plastic laminated finish, Glass lit top board, w/chemical water tap-double type, ceramic sink, gas outlet, power outlet, drawers, 2000×750 ×800	16
29. Laboratory Table for Student (Physics)	Wood, plastic laminated finish, Glass lit top board, gas outlet, power outlet, drawers, 2000×750 ×800	8
30. Black Board (L)	Metal frame, wood board, 3000×1200	9
31. Black Board (S)	Metal frame, wood board, 900×900	1
32. Information Board (L)	Metal frame, flannel finish wood board, 3000×900	16
33. Information Board (S)	Metal frame, flannel finish wood board, 1200×900	1
34. White Board	Metal frame, plastic laminated board, 1800×900	3
35. Movable Black Board	Steel pipe frame, w/caster, metal frame wood board 1800×900 rotary type, projection screen rolling type 1920×620 ×2140	2

36. Wall Clock (S)	Metal frame 300 $\phi$ . battery-quartz type	15
37. Wall Clock (L)	Metal frame 400 $\phi$ . battery-quartz type	1

#### UTENCILS

1. Cooking Gas Range	Large size	2
2. Washing Machine	2 tub, 5Kg type	4
3. Refrigerators	200 $\phi$	1
4. Deep Freezer	Box type 150 $\phi$	1
5. Electric Water Cooler		2

### 6-3-3 Mobile Teaching Unit Plan

Requests were also made as follows for a mobile teaching unit (a van-type vehicle equipped with audiovisual equipment), a number of educational video programmes and a translation system for dubbing the tapes in the local languages.

1) Mobile Unit: 1 unit

1. A/V Equipment Transportation Van  
Modified 4WD, 1 Box Van

2. Projector System

(Colour video projector, 34-inch colour monitor, S-VHS recorder/player, speaker system, power amplifier etc.)

2) Translation System: 1 set

(VTR, video monitor, video typewriter, convertor, audio equipment and video tapes etc.)

3) Educational Video Programmes

(English versions)

11 sets for the subjects of science, nature and mathematics

The following observations may be made concerning the idea of the mobile teaching unit.

There are large numbers of schools dotted around the mountainous and hilly areas of NWFP, which are difficult to reach. These topographical restrictions hinder the provision of adequate educational services to the children in rural areas, as well as the participation of teachers from rural areas (especially female teachers) in the training programmes conducted in cities, making it difficult for them to avail themselves of the opportunities for learning about new teaching methods. The provision of instruction to teachers at outlying schools using a mobile teaching unit touring the principal schools in each area would be useful in overcoming these restrictions and eliminating the discrepancy in educational opportunities. The mobile teaching units would be staffed by learning coordinators (LC), who, as well as monitoring the management and operation of the outlying schools, would provide training for the teachers at these schools and hold demonstration lessons for the pupils, thus contributing to an improvement of the quality and vitalisation of education in rural areas.

The request on this occasion envisaged the introduction of a mobile unit as an experiment in establishing such a system, with a view to confirming its usefulness and discovering the problems that arise in its actual operation. It has been decided, however, that the situation is not yet ripe for such an experiment and that the grant of the equipment listed above should be deferred on this occasion. This is because, in NWFP at least, there has been no experience of or research on such mobile teaching. A further reason is that there are still differences of opinion concerning such an experiment within the NWFP Government.

## 6-4 Implementation Plan

### 6-4-1 Implementation Method

#### (1) Basic Policies

The proposed teacher training college will consist of a college building (total floor area: 2,028 m<sup>2</sup>) housing the classrooms and administrative rooms and a hostel block (total floor area: 2,259 m<sup>2</sup>) containing such facilities the dormitories, the dining room and the warden's office. Since the teacher training college is to accept students not only from the local district but also from other districts, the construction of the hostel block is indispensable and the college cannot begin to function if the college building alone were to be completed first. It is therefore desirable to have the two blocks completed simultaneously so as to allow an early opening of the college. At the same time, an opening of the college is thought desirable in view of the role of the project as a part of the project for improvement of primary education which is being promoted by the Pakistani Government. If, therefore, the project under discussion were to be implemented under grant aid from the Japanese Government, it is thought best to treat the project as a one-year project despite the large scale of the buildings (total floor area: 4,286 m<sup>2</sup>) and the resulting difficulty of completing the construction work within such a short period.

Within the project site, the area that can be used comprises a narrow stretch of sloping ground approximately 200 m from east to west and 55 m from north to south, with an internal height difference of approximately 14 m. Because of these site conditions, it is not possible to have the sports ground, college building and hostel block on the same level and the site will have to be graded into three terraces. A period of approximately one month will be allocated for this grading work. The work to be implemented by the Japanese Government also includes the construction of a well and fencing around the site. For water supply, a water tank tower with a height of approximately 20 m will have to be constructed as the site restrictions render it necessary to make the buildings three-storeyed. A further item of work is the installation of the educational equipment which has to be interfaced with the installation of the architectural installations. As the project entails the implementation of a relative large number of different types of work in this way, it will be necessary to devote a greater work force than is usual to the project and to ensure careful schedule management in order to implement and complete the construction work within one year.

The basic policies for the construction work, based on the above considerations, are given below.

- 1) An adequate assessment will be made in advance of the environmental conditions at the site, and appropriate and thorough scheduling plans will be drawn up to ensure efficient operation of the construction team.
- 2) Detailed plans will be drawn up to achieve certainty in the procurement of the construction materials and their timely and accurate delivery to the construction site.
- 3) Attention will be paid to the coordination between the construction work and equipment installation work and the maximum efforts will be devoted to ensuring the completion of the work without delay within the allotted period.
- 4) The management staff will constantly and accurately monitor the progress of the construction work, and by keeping in close contact with the owner and the consultant,

will endeavour to take various measures to prevent the occurrence of problems and to make the necessary adjustments.

5) Emphasis will be placed on technology transfer in the selection of the construction methods and techniques, so as to maximise the effect of the project as a grant aid cooperation project.

## **(2) Contractors and their Status**

The construction of the college facilities and provision and installation of equipment, which are the responsibilities of the Japanese Government, will be entrusted to a Japanese contractor with an adequate capacity for ensuring the required quality and completing the work within the allotted period, who will use local subcontractors to conduct the work. Since the construction of the facilities and the provision/installation of equipment involve *completely different kinds of work and the equipment to be provided include a great variety of items produced by different manufacturers*, it is thought best to appoint as the contractor a joint venture consisting of a general contractor and a general trading company, the latter of which will be responsible for the provision of the equipment.

With respect to the local subcontractors for the construction work, the location of the project site in a regional town far away from large cities and the tight schedule due to the relatively large scale of the project among one-year grant aid projects make it desirable to select experienced construction firms. There are several firms in Islamabad, which have participated in Japanese grant aid projects in the past as subcontractors. All these firms have commendable records and are capable of operating throughout Pakistan. It seems appropriate, therefore, to select the subcontractors for the project from among these firms.

## **(3) Management Personnel Plan**

### **1) For Construction Work**

As has been mentioned above, the relatively large scale of the project as a one-year project makes for rather a tight schedule. Management staff will therefore have to be allocated in numbers corresponding to the amount of work, so as to complete the project within the given term, without compromising the quality of the work. The Japanese management staff will consist of five members, namely, one field manager, two building engineers (one each for the college building and the hostel block), one electrical engineer and one clerical officer. The types, numbers and dispatch periods of the Japanese management staff are shown below.

(Assignment)	(Number)	(Period of Dispatch)
Field manager	1	12 months (throughout construction period)
Building engineer	2	10 months
Electrical engineer	1	12 months (throughout construction period)
Clerical officer	1	12 months (throughout construction period)

### **2) For Equipment Installation**

While only a small proportion of the grant educational equipment (e.g. audiovisual



equipment for the teacher training college and laboratory tables) actually require installation work, the great variety of grant items (over 100 items covering a wide variety of fields) and the widespread of distribution of the 30 model schools in ten districts to which they have to be delivered mean that a total period of approximately 2 months (1.5 months for the equipment for the primary schools and 0.5 month for the equipment for the teacher training college) will be required for the work of installing and handing over these equipment, which will include the explanation of the methods for handling the equipment, the installation of the furniture in each room and inspections on the equipment installed. An officer in overall charge of the provision and hand-over of the equipment and two officers each, responsible for the teaching materials and audiovisual equipment, will be sent to the host country over the following periods of time.

(Assignment)	(Number)	(Period of Dispatch)
Manager	1	2 months
Teaching materials	1	0.5 months
	1	2 months
Audiovisual equipment	1	0.5 months
	1	2 months

\*Note: Those sent for 0.5 months will be responsible for the teacher training college only, while those sent for 2 months will also deal with the model primary schools.

## 6-4-2 Construction Conditions

### (1) Importance of Preparatory Work

The elevated location and the sloping ground of the proposed site make for unfavourable conditions for the actual construction work. At the same time, the proposed construction work include such items as the excavation of a deep well within the site and the laying of water and gas lines. To ensure a smooth implementation of the work, therefore, adequate consultations will have to be held in advance of the work with the owner and other relevant governmental agencies to decide on the handling of such items as the procurement of the construction space including temporary facilities and their disposal after completion of the work, locations of the stockyards for materials and equipment, route of the construction road, surveys for and test boring of the well and routes for the commercial power supply and gas lines.

### (2) Climatic Conditions

Abbottabad is located in a mountainous area at an elevation of approximately 1,200 m and receives monthly rainfalls of 200 to 300 mm during the July-September monsoon season, while the minimum temperatures fall below 5°C in the December-March winter season and below freezing point on occasion in January. Utmost care will have to be taken over such items as the drainage of storm water and concrete curing in the building frame work during the monsoon season, and over the prevention of the freezing of concrete during curing in winter.

### **(3) Work during Ramadan**

Pakistan is a Muslim country and there is a month of fasting (Ramadan) each year, in accordance with the Islamic calendar. Since a major drop occurs in the efficiency of labour and a slowdown is observed also in the procurement of materials during this period, allowances will have to be made for the Ramadan and the subsequent 'id holiday period in the scheduling plan and the procurement plan for construction materials.

## **6-4-3 Supervision Plan**

### **(1) Supervision Policies**

Taking into full account the purport of the Basic Design, the Consultant must form an integrated project team for detailed design and construction supervision, who will endeavour to effect the accomplishment of the plans while ensuring the coordination of opinions among those concerned. The following basic policies will apply for this supervision work.

- 1) The Consultant will do its best to ensure the completion of the construction work and procurement of materials and equipment without delays, within the agreed term.
- 2) The Consultant will ensure the smooth progress of the work by reporting to and maintaining a close contact with those responsible in the relevant agencies in the two countries and by issuing appropriate and timely advice and guidance to the contractors.
- 3) The Consultant will ensure the achievement of the intended effect of the work as a grant aid project through its endeavours for technological transfer concerning the construction methods and techniques

### **(2) Details of Supervision Work**

#### **1) Work Related to Contracts**

Preparation of design drawings and tender documents, preliminary investigation of qualifications of tenderers, acceptance of bids, evaluation of bids and selection of contractors, preparation of contracts, attendance at conclusion of contracts etc.

#### **2) Examination of Submissions by Contractors**

Examination and approval of materials submitted by the contractors and equipment suppliers (e.g. working drawings, samples of construction and finishing materials, machinery and materials for equipment work)

#### **3) Direction in Construction Work**

Examination of works plan and schedule charts, direction to contractors and regular reports on the progress of work to the Owner

#### **4) Cooperation concerning Payment**

Cooperation in examining invoices from the contractors for costs of construction to be paid during and after the construction work and in the actual procedure for payment

#### **5) Attendance at Inspection**

Attendance and approval at various tests and inspections carried out between the commencement and the completion of work; reports to those concerned in the Japanese Government on the progress of work, payment procedures, completion and hand-over; confirmation of the completion of the work and attendance at hand-over to Owner

### (3) Supervision Personnel Plan

The proposed project involves the implementation of a large number of items of work within a relatively restricted schedule. In view of this situation, the thrust of the supervision work implemented by the Consultant will be on the constant monitoring of the overall progress of work and the sustained provision of guidance and advice to the contractors and to those responsible in the Pakistani Government, aimed at ensuring the smooth progress of the work and adherence to the construction schedule. The dispatch of permanently stationed staff will therefore be indispensable, and this will have to be combined with the dispatch of temporary supervisory staff to deal with the tight construction schedule. In addition to being experienced and having the ability to make appropriate judgements, the supervisors selected must have a wide field of vision and a capacity for coordination work. The types, numbers and dispatch periods of the supervisory personnel to be sent by the Consultant are shown below.

(Responsibility)	(Number)	(Period of Dispatch)
Building Work	1	11.5 months (permanent)
Building Equipment Work	1	1 month (during completion inspection)
Grant Equipment	1	0.5 months (during completion inspection)

### 6-4-4 Procurement Plan

#### (1) Procurement Plan for Construction Materials

The construction materials produced in Pakistan are largely limited to primary products, such as concrete aggregate, cement, bricks and concrete blocks and to such articles as reinforcement steel bars, simple steel members and aluminium fixtures. Other materials, such as structural steel frames and various types of interior finish materials, are mostly imported from abroad. With the exception of such items as air conditioners and fire alarms, a significant number of items used for equipment work, such as electric wires and cables, conduit pipes, socket outlets, valves, piping materials and sanitary ware, are manufactured domestically, but their quality, specifications and supply are unstable and they often cannot be relied upon. The imported construction materials and building equipment are not exactly cheap, due to the imposition of 40 to 200% custom duties.

While the basic rule under the present project will be to procure the construction materials in the host country, materials that cannot be procured locally and materials, the locally produced equivalents of which are unreliable in terms of quality and supply, will be procured in Japan. The procurement sites of the principal construction materials are shown below.

## Procurement Plan for Principal Construction Materials

Item	Origin		Remarks
	Pakistan	Japan	
(Building Work)			
• Aggregate	○		<ul style="list-style-type: none"> <li>• No problems in terms of hardness, grain size and supply</li> <li>• British Standard materials available</li> <li>• Supply slightly unstable, but no problems in terms of quality</li> <li>• Very little production in Pakistan; imported materials available but cheaper to bring them in from Japan</li> <li>• A wide variety of high-quality materials available</li> <li>• Most widely-used finish materials in Pakistan; quality satisfactory</li> <li>• Only mosaic tiles imported from Japan</li> <li>• Floor and exterior wall paint imported from Japan, due to lack of appropriate materials produced locally</li> <li>• A slight fluctuation in quality, but local products usable</li> <li>• Local products more advantageous from the point of view of maintenance</li> <li>• High-quality fixtures made from imported wood available</li> <li>• Local products liable to leakage and supply unstable</li> <li>• Supply of local products unstable</li> </ul>
• Cement	○		
• Reinforcement bars	○		
• Steel frames		○	
• Bricks	○		
• Terrazzo	○		
• Tiles	○	○	
• Paint	○	○	
• Roof materials (roof tiles)	○		
• Waterproofing materials	○		
• Wooden fixtures	○		
• Aluminium fixtures		○	
• Ceiling materials		○	
(Equipment Work)			
• Distribution panels		○	<ul style="list-style-type: none"> <li>• To ensure quality and certainty of procurement</li> <li>• Supply of local products unstable for certain types of cables</li> <li>• To ensure uniformity of material quality, smoothness of inside faces and facility of installation</li> <li>• To facilitate future maintenance</li> <li>• To ensure reliable quality</li> <li>• Adaptation to local standards</li> <li>• Locally procured materials deemed appropriate</li> <li>• Locally procured materials deemed appropriate for the sake of maintenance</li> <li>• Cast-in-place concrete</li> <li>• To ensure durability and facility of installation</li> <li>• To ensure high quality, performance and durability</li> <li>• Locally procured materials deemed appropriate</li> <li>• To ensure high quality, performance and durability</li> <li>• Cast-in-place concrete</li> <li>• Cast-in-place concrete</li> <li>• To ensure high quality, performance and durability</li> </ul>
• Electric wires/cables	○	○	
• Conduit pipes		○	
• Lighting equipment	○	○	
• Switches	○		
• Socket outlets	○		
• Ceiling fans	○		
• Electric heaters	○		
• Reception water tank	○		
• Elevated water tank		○	
• Pumps		○	
• Sanitary ware	○		
• Hot water boiler		○	
• Septic tank, leach pit	○		
• Drainage tanks	○		
• Ventilation fans		○	

## **(2) Equipment Procurement Plan**

Of the grant items, most of the teaching materials, audiovisual equipment and clerical and administrative equipment are not produced in Pakistan. These will be procured in Japan to ensure reliability in terms of their quality and supply and to facilitate aftercare services by the suppliers for their maintenance. Most of the furniture and utensils will be procured in Pakistan, and only the laboratory tables, blackboards, whiteboards and notice boards, which are difficult to procure locally, will be imported from Japan.

## **(3) Transportation Plan**

The materials imported from Japan will be transported by sea to Karachi and from there by lorries and trailers. The number of days required for transportation from Japan to Abbottabad will be as follows.

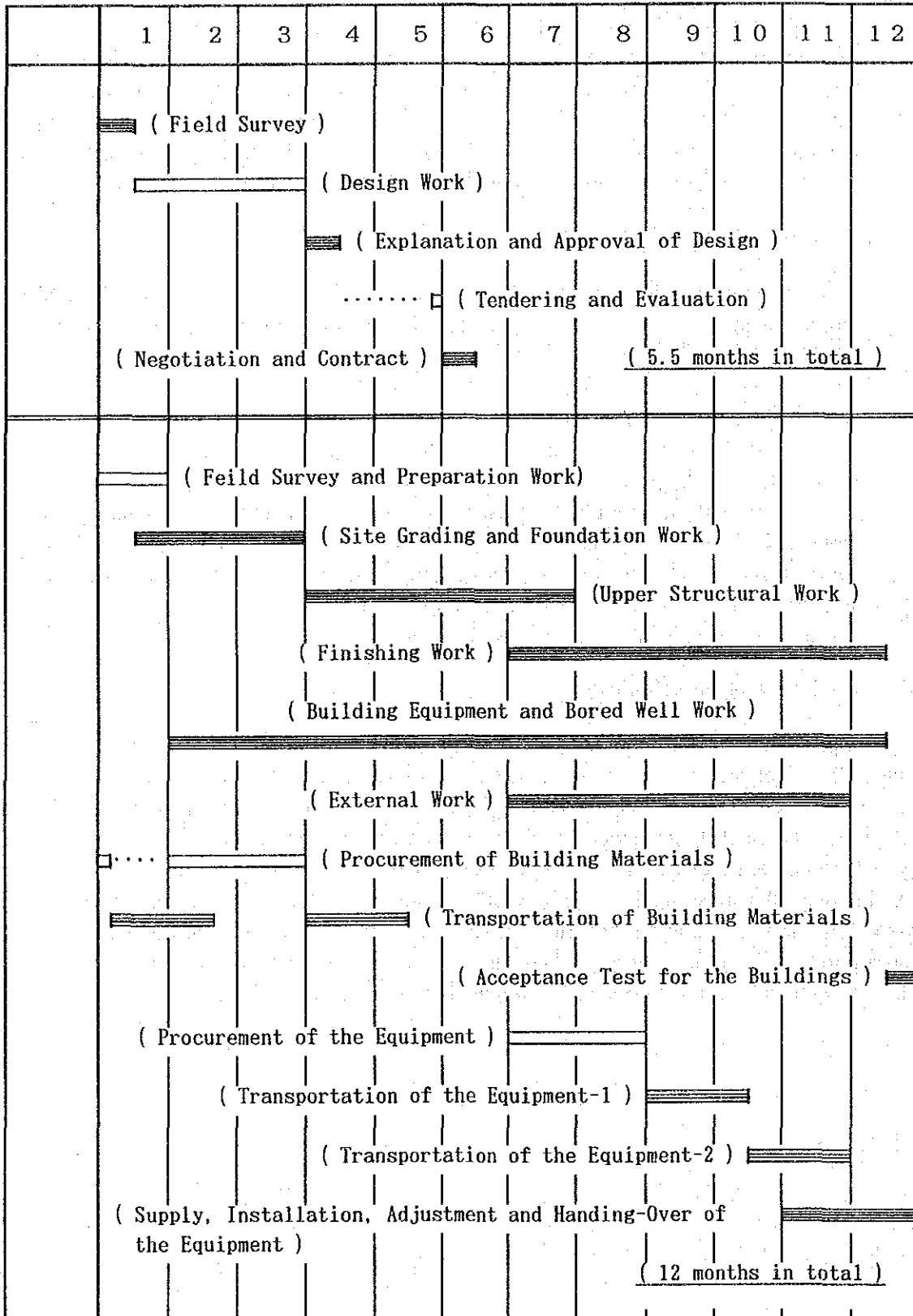
Marine transportation	30 to 40 days
Custom clearance	10 to 15 days
Overland transportation	3 to 4 days
Total Approx.	40 to 60 days

Troubles often occur during clearance through customs in Pakistan, and materials imported for grant aid projects are no exceptions. The Contractor and the NWFP Education Department, which will be the consignee, should be well acquainted with the tax-exemption procedures and permits relating to importation, and make ample allowances for the time required for these procedures.

## **6-4-5 Implementation Schedule**

The procedure for the implementation of the project will be as follows. After the Exchange of Notes (E/N) between the Japanese and Pakistani Governments, a design/supervision agreement will be concluded between the executing agency in the Pakistani Government and a Japanese consultant. This will be followed by the preparation of the detailed design and tender documents by the consultant and bidding by Japanese construction firms. Examination of the bids and conclusion of the construction contract will be followed by the commencement of the construction work. A period of five and a half months has been allocated for the detailed design and bidding, and a period of 12 months for the construction work and the provision/installation of equipment. The implementation schedule is given in the table on the following page.

IMPLEMENTATION SCHEDULE



## 6-4-6 Scope of Works

### (1) Division of Responsibilities

In the event of the project being implemented under grant aid from the Japanese Government, the responsibilities for the various items of work to be implemented under the project should be divided as follows between the Japanese and Pakistani Governments. Of these items, the laying of power and gas lines to the construction site, which is to be carried out by the Pakistani Government, needs to be completed, respectively, prior to the commencement of the construction work and prior to the completion inspection.

#### 1) Japanese Side

1. Construction of the college building and hostel block for the Abbottabad Teacher Training College for Females (including building equipment work).
2. Exterior work, including the grading of the site and the construction of fencing around the site
3. Construction of water supply works for the college, including the construction of a well
4. Provision and installation of equipment for the college
5. Provision of teaching materials for the 30 model schools

#### 2) Pakistani Side

1. Procurement of the college site and space required for construction work
2. Laying of power and gas lines to the construction sites
3. Other necessary works on site (telephones, tree-planting, construction of guard post etc.)
4. Provision of furniture and utensils required at the college, which were excluded from the scope of the grant
5. Tax-exemption procedures for all the imported construction materials and grant equipment
6. Payment of bank charges (commission to be paid to Pakistani banks for issue of "authorisation to pay")
7. Implementation of various procedures and formalities required in Pakistan

### (2) Estimated Project Costs

The estimated costs to be borne by the Japanese and Pakistani Government, based on the division of responsibilities given above, will be as follows.

#### Costs to be Borne by the Pakistani Government

1) Gas lines	Rs. 610,000
2) Bank charges	Rs. 893,100
3) Furniture/utensils for Teacher Training College	Rs. 65,900
Total	Rs.1,569,000





## Chapter 7 Project Evaluation and Conclusion

While the direct effect of the model primary school project will be that of approximately 7,000 children being newly enrolled in schools, there are 1.5 million children not attending school in NWFP. As a measure for raising the enrollment rate, the scale of the project is too small, and it has to be concluded that, in quantitative terms, the project will only make a minute contribution to the solution of the problem. However, the high-quality school facilities provided under this project are to function as "model schools," and will provide models pointing the way forward for the improvement on the poor school facilities constructed in the past.

Furthermore, the implementation of quality education through use of the school facilities provided and the teaching materials for sciences, will help raise the level of interest in and renew the awareness concerning education at the nearby primary and middle schools and in the communities surrounding them. It will, at the same time, provide a major stimulus to those involved in education in those districts of NWFP which were excluded from the project on this occasion. The project may be expected to have a significant impact for the improvement of primary education in the province.

The proposed teacher training college for females will be opened in 1996 and will supply 200 PTC holders each year from the following year onwards. Assuming that each graduating teacher will teach 40 pupils each year, this means 8,000 children will benefit directly from the project each year.

As of 1992, there were 8,510 qualified female teachers in the province and the existing teacher training colleges were adding 1,050 new teachers to this number each year. When the four colleges under construction at present are completed, these will provide an additional 600 new teachers each year starting in 1995, bringing the annual supply up to 1,650.

Upon completion of the proposed teacher training college, from 1997 onwards, the graduates from the college will provide an addition of 12.1% to the 1,650 female teachers mentioned above. And, if the annual loss, due to retirement and other reasons, is estimated at 3%, the total number of qualified teachers in 1997, when the first graduate leave the proposed college, may be estimated at 13,250. The addition of 200 new teachers from the college will mean an increase of approximately 1.5% at this point.

As has been mentioned above, the two projects discussed in the present report form a part of the package project proposed by the Project Formulation Study Team. The package project is a comprehensive project, under which the sub-projects that can be implemented are selected from the projects requested by the government of the host country and are implemented according to the programme approach over periods extending over several years. Indispensable for this will be the processes of overall planning, implementation, monitoring and review by the government of the host country. In this connection, considerations will have to be made, for example, for a long-term dispatch of experts capable of providing guidance to the teachers and those involved in the administration of education, as well as of making recommendations for improvements in the educational policies and structures.

A further problem is the low quality of primary school teachers in Pakistan, a situation calling for an urgent improvement of the programmes at the teacher training colleges. In addition to the

considerations for ensuring the effective use of the teaching materials provided under the present project, considerations will also have to be made on the adoption of more efficient learning methods, such as group learning. Success in this respect, however, cannot be hoped for unless the teachers themselves are given the necessary experience. Investigations ought therefore be made in future on the linkage of technical cooperation to grant aid cooperation in the approach to the actual implementation of the assistance to the primary education sector in Pakistan.

APPENDIX-1: Member List and Itinerary of the Field Survey Team

(1) The First Field Survey (13 Sept. '93 ~ 12 Oct. '93)

List of Members

Mr. ONO, Shuji	Leader Second Basic Design Study Division, Grant Aid Study and Design Department, JICA
Ms. HATANAKA, Hatsune	Women in Development Associate Specialist Environment, WID & Other Global Issues Division, Planning Department, JICA
Mr. SHIRAI, Kazunari	Project Manager NISSOKEN Architect/Engineers (NSK)
Mr. SHIRAI, Akira	Facilities Planner-1 NISSOKEN Architect/Engineers (NSK)
Mr. NAGANO, Yoshishige	Facilities Planner-2 NISSOKEN Architect/Engineers (NSK)

Itinerary of the Survey

9/13 Mon. Shirai K, Shirai A & Nagano Lv. Tokyo

14 Tue. Ar. Islamabad, meeting at JICA office, visit USAID office

15 Wed. Move to Peshawar, courtesy call to NWFP Govt.

16 Thu. Meeting at NWFP Govt. (inception report explanation, survey schedule, data collection on proposed sites)

17 Fri. Site survey and existing primary schools in Peshawar dist.

18 Sat. Site survey in Kohat dist., discuss at Education Dept.

19 Sun. Site survey in Karak dist., discuss at Primary Edu. Dirctt.

20 Mon. Site survey in Swabi dist., meeting at Primary Edu. Dirctt. (data collection on proposed sites)  
Ono & Hatanaka Lv. Tokyo, Ar. Islamabad (Shirai K joins)

21 Tue. [Islamabad] Meeting at JICA office, courtesy call to Japan Embassy & Education Ministry  
[Peshawar] Site survey in Charsadda dist., data collection

- 22 Wed. [Islamabad] Courtesy call to Finance Economic Affairs Ministry and Women Develop. Ministry, visit WB office, move to Peshawar  
[Peshawar] Site survey in Mardan dist.
- 23 Thu. Site survey in Nowshera dist., courtesy call to NWFP Govt.
- 24 Fri. Data pigeonhole
- 25 Sat. Site survey and existing primary schools in Peshawar dist., discuss at Primary Edu. Dirctt., visit ADB office
- 26 Sun. Discuss at Education Dept. on Grant Aid scheme, visit Elementary Teachers' Colleges in Peshawar, topographic survey of sites by local consultant started (~Nov.)
- 27 Mon. Discuss at GTZ office, discuss of Primary Education Dirctt. & Secondary Education Dirctt.
- 28 Tue. Meeting at Education Dept., discuss at Primary Education Dirctt, visit Public Service commission, visit Elementary Teachers' College and primary schools in Swat dist
- 29 Wed. Signing of Minutes of Discussions, data collection from Secondary Education Dirctt. and C & W, survey on const. conditions
- 30 Thu. Visit experimental primary schools in Swat dist., data collection from Public Service Commission, survey on const. conditions
- 10/1 Fri. Draft basic design of model school
- 2 Sat. Survey on const. conditions, discuss with Primary Education Dirctt. on draft design of model school, data collection from Peshawar Univ.
- 3 Sun. Report to Primary Education Dirctt. & Education Dept., move to Abbottabad, Ono & Hatanaka Lv. Islamabad Ar. Tokyo
- 4 Mon. Visit Bureau of Curriculum Develop. & Education Extension Services, visit Elementary Teachers' College in Mansehra
- 5 Tue. Move to Islamabad
- 6 Wed. Meeting with local consultant, data pigeonhole
- 7 Thu. Survey on const. conditions, data collection from local contractors, data pigeonhole
- 8 Fri. Data pigeonhole
- 9 Sat. Data pigeonhole
- 10 Sun. Report to JICA office, Japan Embassy and Education Ministry
- 11 Mon. Lv. Islamabad
- 12 Tue. Ar. Tokyo

(2) The Second Field Survey (3 Dec. '93 ~ 21 Dec. '93)

List of Members

Mr. UTSUMI, Seiji	Leader Development Specialist (Educational Technology), JICA
Mr. SHIRAI, Kazunari	Project Manager NISSOKEN Architects/Engineers (NSK)
Mr. SHIRAI, Akira	Facilities Planner 1 NISSOKEN Architects/Engineers (NSK)
Mr. NAGANO, Yoshishige	Facilities Planner 2 NISSOKEN Architects/Engineers (NSK)

Itinerary of the Survey

12/03	Fri.	Shirai K, Shirai A & Nagano Lv. Tokyo and Ar. Islamabad
04	Sat.	Meeting at JICA office, courtesy call to Ministry of Education and Economic Affairs Division, move to Peshawar
05	Sun.	Meeting at NWFP Govt. (explanation of Interim Report and signing of Minutes of Discussions)
06	Mon.	Meeting at Primary Edu. Dirctt. (explanation of Interim Report and data collection on planned GCET Abbottabad)
07	Tue.	Ditto
08	Wed.	Discuss at Primary Edu. Dirctt. on selection of educational equipment for the model schools)
09	Thu.	Move to Abbottabad, Meeting at Bureau of Curriculum on planned GCET Abbottabad)
10	Fri.	Site survey for planned GCET Abbottabad, Move to Peshawar
11	Sat.	Visit existing GCETs at Peshawar, Meeting at Secondary Edu. Dirctt. (Data collection on human resources for the GCET)
12	Sun.	Discuss at Primary Edu. Dirctt. on basic plan of the GCET, Explanation of Interim Report to Secretary of Edu. Deptt.
13	Mon.	Explanation of Interim Report to education officers of the selected 10 districts at Primary Edu. Dirctt.
14	Tue.	Discuss at Primary Edu. Dirctt. (on mobile teaching unit)

- 15 Wed. Utsumi Ar. Peshawar, Discuss at Primary Edu. Dirctt. on educational equipment, Data collection at Secondary Edu. Dirctt.
- 16 Thu. Survey of existing primary schools at Peshawar, Discuss at Primary Edu. Dirctt. on educational equipment, Meeting at Financial Deptt. on the budget for the Project.
- 17 Fri. (Utsumi and Shirai K) Survey at the proposed site and area, Abbottabad
- 18 Sat. Meeting at Education Deptt., P.E. & Dev. Deptt. and Finance Deptt., Signing of Minutes of Discussions, Move to Islamabad
- 19 Sun. Report to JICA office, Japan Embassy, Ministry of Education and E.A.D., Lv. Islamabad
- 20 Mon. Ar. Bangkok
- 21 Tue. Ar. Tokyo

(3) The Draft Report Explanation (28 Feb. '94 ~ 11 Mar. '94)

#### List of Members

Mr. Ono, Shuji	Leader Second Basic Design Study Division, Grant Aid Study and Design Department, JICA
Mr. TERAMOTO, Masatoshi	Project Coordinator First Project Management Division Grant Aid Project Management Department, JICA
Mr. SHIRAI, Kazunari	Project Manager NISSOKEN Architects/Engineers (NSK)
Mr. SHIRAI, Akira	Facilities Planner 1 NISSOKEN Architects/Engineers (NSK)

#### Itinerary of the Survey

- 2/28 Mon. Lv. Tokyo Ar. Islamabad
- 3 /1 Tue. Meeting at JICA office and Japan Embassy, report to Ministry of Education and Economic Affairs Division, visit WB office
- 2 Wed. Move to Peshawar
- 3 Thu. Meeting at NWFP Govt., move to Abbottabad

- 4 Fri. Site survey for proposed GCET site, visit GCET Mansehra
- 5 Sat. Meeting at Bureau of Curriculum, move to Peshawar
- 6 Sun. Meeting at NWFP Govt.
- 7 Mon. Ditto
- 8 Tue. Signing of Minutes of Discussions, move to Islamabad
- 9 Wed. Report to JICA office, Japan Embassy, Ministry of Education, WB office and E.A.D.
- 10 Thu. Lv. Islamabad Ar. Karachi
- 11 Fri. Ar. Tokyo

MINUTES OF DISCUSSIONS  
BASIC DESIGN STUDY  
ON  
THE PROJECT FOR THE IMPROVEMENT IN THE PRIMARY EDUCATION  
FOR THE NORTH-WEST FRONTIER PROVINCE  
IN THE ISLAMIC REPUBLIC OF PAKISTAN

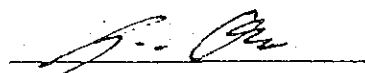
In response to a request of the Government of the Islamic Republic of Pakistan, the Government of Japan decided to conduct a Basic Design Study on the Project for THE IMPROVEMENT IN THE PRIMARY EDUCATION FOR THE NORTH-WEST FRONTIER PROVINCE (hereinafter referred to as "the Project"), and entrusted the study to the Japan International Cooperation Agency (JICA).

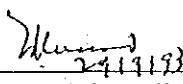
JICA sent to the Islamic Republic of Pakistan a study team headed by Mr. Shuji Ono, Second Basic Design Study Division, Grant Aid Study and Design Department, JICA, and is scheduled to stay in the country from September 14 to October 11, 1993.

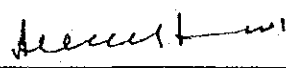
The team held discussions with the officials concerned of the Government of Pakistan and conducted field surveys at the study area.

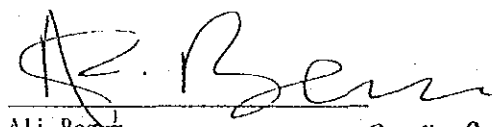
In the course of discussions and field survey, both parties have confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Interim Report.

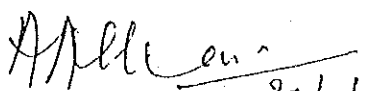
Peshawar, September 29, 1993

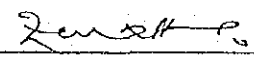
  
Shuji Ono  
Leader  
Basic Design Team  
JICA

  
Masood-ur-Rehman Masood  
Secretary  
Education Department  
N.W.F.P.

  
Abdul Jialil Mughal  
Additional Secretary  
Planning, Environment and  
Development Department  
N.W.F.P.

  
Ali Begum  
Additional Secretary  
Finance Department  
N.W.F.P. 29.9.93

  
Dr. Abdul Aziz Khan  
Joint Executive Advisor  
Ministry of Education 30/9/93

  
Farhat Hussain  
Joint Secretary  
Economic Affairs Division  
Ministry of Finance and  
Economic Affairs

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29/9/93  
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ATTACHMENT

1. Objective of the Project  
The objective of the Project is to improve the primary education in the North-West Frontier Province in the light of gender equity.
2. Project Sites  
The Project sites are to be selected from the list in the attached ANNEX-1.
3. Executing Agency  
Education Department, N.W.F.P., is responsible for the administration and execution of the Project.
4. Items Requested by the Government of Pakistan  
After the discussions with the Basic Design Study Team, the following items were finally requested by the Pakistan side, as the objective of the first field survey;  
  
- Construction of 70 model primary schools having five (5) classrooms  
  
However, the final components of the Project will be decided through the further studies in Japan.
5. Japanese Grant Aid System
  - (1) The Government of Pakistan has understood the system of Japanese Grant Aid explained by the team.
  - (2) The Government of Pakistan has agreed to take necessary measures described in ANNEX-II, on condition that the Grant Aid Assistance by the Government of Japan is extended to the Project. However, the Government of Pakistan requested to the Basic Design Team to consider that boundary walls and supply of water for the schools would be included in the Grant Aid.
6. Schedule of the Study
  - (1) The consultant will proceed to further studies in Pakistan until October 11, 1993.
  - (2) JICA will prepare the interim report in English and dispatch a mission in order to explain its contents and to carry out the second Basic Design Study, in the beginning of December, 1993.
  - (3) In case that the contents of the report is accepted in principle by the Government of Pakistan, JICA will proceed to the next step.

29/12/93

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ANNEX-I: Project Sites

Project sites are to be selected from the following list;

1. Peshawar District
  - 1) Hayat Abad Phase-1
  - 2) Hayat Abad Phase-3
  - 3) Babu Zai (Shah Alam)
  - 4) Gul Bela
  - 5) Masho Khel
  - 6) Budhni
  - 7) Jhagra
2. Nowshera District
  - 1) Taru Jabba
  - 2) Jalozai
  - 3) Mughulki
  - 4) Khashiki Payan
3. Charsadda District
  - 1) New Turlandi
  - 2) Shaki Kulali (Navi Killi)
  - 3) Mera Umar Zai
  - 4) Abdul Ali Killi
4. Mardan District
  - 1) Rustam
  - 2) Gumbat
  - 3) Karim Abad
  - 4) Fathma
  - 5) Baghicha Dheri
5. Swabi District
  - 1) Topi
  - 2) Adina
  - 3) Lahor
  - 4) Bachai Dagi
6. Kohat District
  - 1) Tough Payan
  - 2) Chargarri
  - 3) Mohammad Khawaja
  - 4) Ganjiano Killa
7. Karak District
  - 1) Town Committee
  - 2) Khada Banda
  - 3) Iqbal Bonda Taterkhel
8. Abbotabad District
  - 1) Damthour
  - 2) Mirpur
  - 3) Bandi Dhondian
  - 4) Juna Chamhatti
9. Haripur District
  - 1) Pircot
  - 2) Tippra
  - 3) Bijian
  - 4) K.T.Ship No.2 Sector
10. Mansehra District
  - 1) Karkala
  - 2) Phulra
  - 3) Bisian
  - 4) Hamid Abad
11. Battagram District
  - 1) Polabela
  - 2) Kurwal Dab
12. Bannu District
  - 1) Amir Khan Nurur
  - 2) Bazida Surrani
  - 3) Azmaikillig Noor Aslam
  - 4) Kakki, Khass Kifayaiullah
13. Lakki District
  - 1) Begu Khel
  - 2) Ghgrni Khel
14. D.I. Khan District
  - 1) Line Police D.I.Khan City
  - 2) Pahar Pur T/Committee
  - 3) Basti Saeed Abad
  - 4) Town Committee Kulachi
15. Tank District
  - 1) Gomal Bazar
  - 2) Aslam Abad (Amakhel)
16. Dir District
  - 1) Hayaseri
  - 2) Lal Qila
  - 3) Munda
  - 4) Talash
17. Swat District
  - 1) Gujar Tangay
  - 2) Faqir Abad
  - 3) Qazi Abad
  - 4) Chail
  - 5) Gogdara
18. Bunir District
  - 1) Agarai
  - 2) Daggar Qila
19. Malakand District
  - 1) Niamat Abad (Koper)
  - 2) Qadam Khela

S.O.

ANNEX-II: Necessary Measures to be taken by the Government of Pakistan  
in case Japan's Grant Aid is Executed

1. To secure the sites for the Project.
2. To clear, level and reclaim the Project sites, when needed, prior to commencement of the construction.
3. To construct the access road to the Project sites prior to commencement of the construction.
4. To provide facilities for distribution of electricity, water supply, drainage, sewage and other incidental facilities to the Project sites.
- \* 5. To bear commissions to the Japanese foreign exchange bank for banking services based upon the Banking Arrangement (B/A).
6. To exempt taxes and to take necessary measures for customs clearance of the materials and equipment brought for the Project at the port of disembarkation.
7. To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contract such facilities as may be necessary for their entry into Pakistan and stay therein for the performance of their work.
8. To maintain and use properly and effectively that the facilities constructed and equipment purchased under the Grant.
9. To bear all the expenses other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment.
10. To coordinate and solve any matters related, which may arise with a third party and inhabitants living in the Project area during implementation of the Project.
11. To assign appropriate numbers of qualified teachers and management staffs for each school and to mobilize them upon completion of the Project.

will be  
discussed  
in Dec.  
1993

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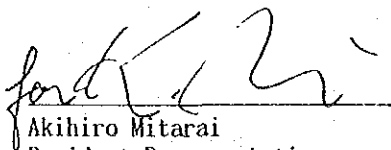
MINUTES OF DISCUSSIONS  
BASIC DESIGN STUDY  
ON  
THE PROJECT FOR THE IMPROVEMENT IN THE PRIMARY EDUCATION  
FOR THE NORTH-WEST FRONTIER PROVINCE  
IN THE ISLAMIC REPUBLIC OF PAKISTAN  
(CONSULTATION ON INTERIM REPORT)


In September 1993, the Japan International Cooperation Agency (JICA) dispatched a Basic Design Study Team on the project for THE IMPROVEMENT IN THE PRIMARY EDUCATION FOR THE NORTH-WEST FRONTIER PROVINCE (hereinafter referred to as "the Project"), to the Islamic Republic of Pakistan and, through discussions, field survey and technical examination of the results in Japan, has prepared the interim report of the study.

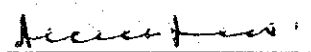
In order to explain and to consult the Pakistani side on the components of the interim report, JICA sent to Pakistan a study team which is scheduled to stay in the country from December 3 to 20, 1993.

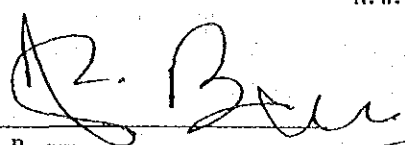
As a result of discussions, both sides confirmed the main items described on the attached sheets.

Peshawar, December 05, 1993

  
Akihiro Mitarai  
Resident Representative  
JICA PAKISTAN OFFICE

  
Masood-ur-Rehman Masood  
Secretary  
Education Department  
N.W.F.P.

  
Abdul Jalil Mughal  
Additional Secretary  
Planning, Environment and  
Development Department  
N.W.F.P.

  
Ali Begum  
Additional Secretary  
Finance Department  
N.W.F.P.

5.12.93

Dr. Abdul Aziz Khan  
Joint Executive Advisor  
Ministry of Education

Farhat Hussain  
Joint Secretary  
Economic Affairs Division  
Ministry of Finance and  
Economic Affairs

ATTACHMENT

(1) Components of Interim Report

The Government of Pakistan has agreed and accepted in principle the components of the interim report proposed by the team.

(2) Japan's Grant Aid Programme

- 1) The Government of Pakistan has understood the system of Japanese Grant Aid explained by the team.
- 2) The Government of North-West Frontier Province will take the necessary measures described in ANNEX for smooth implementation of the Project on condition that the Grant Aid assistance by the Government of Japan is extended to the Project.

(3) Schedule of the Study

- 1) The team will proceed to further studies in Pakistan until December 20, 1993.
- 2) JICA will prepare the draft report in English and dispatch a mission in order to explain its contents on February, 1994.
- 3) In case that the contents of the report is accepted in principle by the Government of Pakistan, JICA will proceed to the next step.

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ANNEX: Necessary Measures to be taken by the Government of Pakistan  
in case Japan's Grant Aid is Extended

1. To secure the sites for the Project.
2. To clear, level and reclaim the Project sites, when needed, prior to commencement of the construction.
3. To construct the access roads to the Project sites prior to commencement of the construction.
4. To provide facilities for distribution of electricity, water supply, drainage, sewage and other incidental facilities to the Project sites.
5. To bear commissions to the Japanese foreign exchange bank for banking services based upon the Banking Arrangement (B/A).
6. To exempt taxes and to take necessary measures for customs clearance of the materials and equipment brought for the Project at the port of disembarkation.
7. To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contract such facilities as may be necessary for their entry into Pakistan and stay therein for the performance of their work.
8. To maintain and use properly and effectively the facilities constructed and the purchased under the Grant.
9. To bear all the expenses other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment.
10. To coordinate and solve any matters related, which may arise with a third party and inhabitants living in the Project area during implementation of the Project.
11. To assign appropriate numbers of qualified teachers and management staffs for each school and to mobilize them upon completion of the Project.

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MINUTES OF DISCUSSIONS  
BASIC DESIGN STUDY  
ON

THE PROJECT FOR ESTABLISHMENT OF TEACHERS' TRAINING COLLEGE FOR FEMALE  
AND PROVISION OF EDUCATIONAL EQUIPMENT FOR THE NORTH-WEST FRONTIER PROVINCE  
IN THE ISLAMIC REPUBLIC OF PAKISTAN

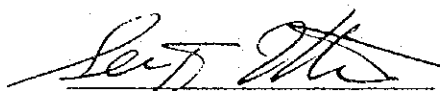
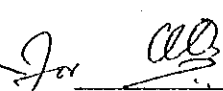
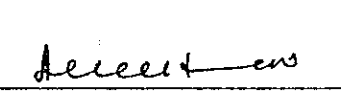
In response to a request of the Government of the Islamic Republic of Pakistan, the Government of Japan decided to conduct a Basic Design Study on the Project for ESTABLISHMENT OF TEACHERS' TRAINING COLLEGE FOR FEMALE AND PROVISION OF EDUCATIONAL EQUIPMENT FOR THE NORTH-WEST FRONTIER PROVINCE (hereinafter referred to as "the Project"), and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to the Islamic Republic of Pakistan a study team headed by Mr. Seiji Utsumi, Development Specialist, JICA, and the team is scheduled to stay in the country from December 3 to 20, 1993.

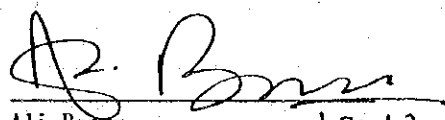
The team held discussions with the officials concerned of the Government of Pakistan and conducted a field survey at the study area.

In the course of discussions and the field survey, both parties have confirmed the main items described on the attached sheets. The team will proceed to further works and prepare the Basic Design Study Report.

Peshawar, December 18, 1993

  Dec. 18, 1993 

Seiji Utsumi Leader Basic Design Study Team JICA	Masood-ur-Rehman Masood Secretary Education Department N.W.F.P.	Abdul Jalil Mughal Additional Secretary Planning, Environment and Development Department N.W.F.P.
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Ali Begum  
Additional Secretary  
Finance Department  
N.W.F.P. 18.12.93

Dr. Abdul Aziz Khan  
Joint Executive Advisor  
Ministry of Education

Farhat Hussain  
Joint Secretary  
Economic Affairs Division  
Ministry of Finance and  
Economic Affairs

ATTACHMENT

1. Objective of the Project

The objective of the Project is to improve the primary education in the North-West Frontier Province in the light of gender equity.

2. Project Site

The Project site is located behind the Government Degree College in the town of Abbottabad, Abbottabad District.

3. Executing Agency

Education Department, N.W.F.P., is responsible for the administration and execution of the Project.

4. Items Requested by the Government of Pakistan

After the discussions with the Basic Design Study Team, the following items were requested by the Pakistan side and the team agreed to convey the request to the Japanese Government. However, the final components of the Project will be decided through the further studies in Japan;

1) Construction of one teachers' training college for female in Abbottabad, comprising;

- Administration block to accommodate one principal, 10 instructors and the other staffs
- Academic block with class rooms for 200 students, laboratories, library, multi-purpose hall, etc.
- Hostel for 200 boarders with students' rooms, dispensary, warden's room and office, common room, dining hall, kitchen, etc.

2) Provision of educational equipment comprising;

- a) Educational equipment for the teachers' training college for female in Abbottabad
  - Science laboratory equipment (biology, chemistry, physics)
  - Audio visual equipment, etc.
  - Sports gears
- b) Educational equipment for the 30 model primary schools
- c) One mobile teaching unit for both mobile classes and mobile in-service training

*S. J.*

*CCD*  
*18/12/93*

*[Signature]*  
*18.12.93*

*[Signature]*  
*18.12.93*



5. Japanese Grant Aid System

- 1) The Government of Pakistan has understood the system of Japanese Grant Aid explained by the team.
- 2) The Government of Pakistan has agreed to take necessary measures described in ANNEX, on condition that the Grant Aid Assistance by the Government of Japan is extended to the Project. However, the Government of Pakistan requested to the Basic Design Team to consider that boundary walls and supply of water for the college would be included in the Grant Aid.

6. Schedule of the Study

- 1) The consultant will proceed to further studies in Pakistan until December 20, 1993.
- 2) JICA will prepare the draft report in English and dispatch a mission in order to explain its contents on February, 1994.
- 3) In case that the contents of the report is accepted in principle by the Government of Pakistan, JICA will proceed to the next step.

7. Other Item.

On this occasion the Pakistan side requested that the other model primary schools which have not been covered in the Interim Report for the Project for the Improvement of Primary Education in NWFP may be considered in the subsequent phases.

S.G.

18/12/93


The Agency to look after the M+A of the Buildings, is C + W Dept. Their commitment should also be ensured.

18.12.93

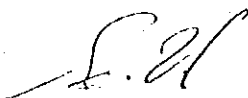
18.12.93

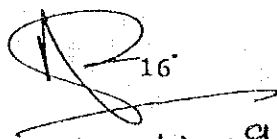
ANNEX: Necessary Measures to be taken by the Government of Pakistan  
in case Japan's Grant Aid is Extended

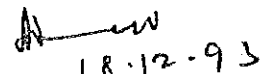
1. To secure the site for the Project.
2. To clear, level and reclaim the Project site, when needed, prior to commencement of the construction.
3. To construct the access roads to the Project site prior to commencement of the construction.
4. To provide facilities for distribution of electricity, water supply, drainage, sewage and other incidental facilities to the Project site.
5. To bear commissions to the Japanese foreign exchange bank for banking services based upon the Banking Arrangement (B/A).
6. To exempt taxes and to take necessary measures for customs clearance of the materials and equipment brought for the Project at the port of disembarkation.
7. To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contract such facilities as may be necessary for their entry into Pakistan and stay therein for the performance of their work.
8. To maintain and use properly and effectively the facilities constructed and the equipment purchased under the Grant.
9. To bear all the agreed expenses other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment.
10. To coordinate and solve any matters related, which may arise with a third party and inhabitants living in the Project area during implementation of the Project.
11. To assign appropriate numbers of qualified teaching and management staffs for the Teachers' Training College for Female in Abbottabad and to mobilize them upon completion of the Project.

*Items 5, 6 & 7 are subject to the approval  
of the Federal Govt. *

*Dec. 18, 1993*



  
16  
11.12.92

  
18.12.93

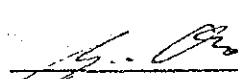
MINUTES OF DISCUSSIONS  
BASIC DESIGN STUDY  
ON  
THE PROJECT FOR ESTABLISHMENT OF TEACHERS' TRAINING COLLEGE FOR FEMALE  
AND PROVISION OF EDUCATIONAL EQUIPMENT  
FOR THE NORTH-WEST FRONTIER PROVINCE  
IN THE ISLAMIC REPUBLIC OF PAKISTAN  
(CONSULTATION ON DRAFT REPORT)

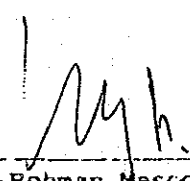
In December 1993, the Japan International Cooperation Agency (JICA) dispatched a Basic Design Study Team on the Project for ESTABLISHMENT OF TEACHERS' TRAINING COLLEGE FOR FEMALE AND PROVISION OF EDUCATIONAL EQUIPMENT FOR THE NORTH-WEST FRONTIER PROVINCE (hereinafter referred to as "the Project"), to the Islamic Republic of Pakistan and, through discussions, field survey, and technical examination of the results in Japan, has prepared the Draft Report of the study.

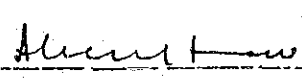
In order to explain and to consult the Pakistani side on the components of the Draft Report, JICA sent to Pakistan a study team which is scheduled to stay in the country from February 28 to March 11, 1994.

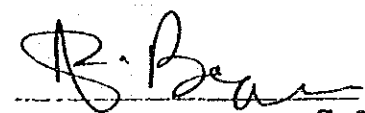
As a result of discussions, both sides confirmed the main items described on the attached sheets.

Peshawar, March 8, 1994

  
Shuji Ono  
Leader  
Basic Design Study Team  
JICA

  
Masood-ur-Rehman Masood  
Secretary  
Education Department  
N.W.F.P.

  
Abdul Jalil Mughal  
Additional Secretary  
Planning, Environment &  
Development Department  
N.W.F.P.

  
HJ Begum  
Additional Secretary  
Finance Department  
N.W.F.P.

Dr. Abdul Aziz Khan  
Joint Executive Advisor  
Ministry of Education

Farhat Hussain  
Joint Secretary  
E.A.D.  
Ministry of Finance &  
Economic Affairs

## ATTACHMENT

### (1) Components of Draft Report

The Government of Pakistan has agreed and accepted in principle the components of the Draft Report proposed by the team.

The Pakistan side has requested the following items to be involved in the Basic Design, and the team agreed to review them.

- 1) The heating system for the college hostel should make use of gas as its energy resource due to running cost.
- 2) Electric water cooler for drinking water should be provided for the college.
- 3) The facilities of the college should be surrounded by brick walls because of purdah.

### (2) Japan's Grant Aid Program

- 1) The Government of Pakistan has understood the system of Japanese Grant Aid explained by the team.
- 2) The Government of North-West Province take necessary measures, described in ANNEX, for smooth implementation of the Project on condition that the Grant Aid assistance by the Government of Japan is extended to the Project.

### (3) Further Schedule

The team will make the Final Report in accordance with the confirmed items, and send it to the Government of Pakistan by the end of April, 1994.

ANNEX: Necessary measures to be taken by the Government of Pakistan  
in case Japan's Grant Aid is Extended

1. To secure the site for the Project.
2. To clear, level and reclaim the Project site, when needed, prior to the commencement of the construction.
3. To construct the access road to the Project site prior to the commencement of the construction.
4. To provide facilities for the distribution of electricity, city water supply, drainage, sewage and other incidental facilities to the Project site.
5. To bear commissions to the Japanese foreign exchange bank for banking services based upon the Banking Arrangement (B/A).
6. To exempt taxes and to take necessary measures for customs clearance of the materials and equipment brought for the Project at port of disembarkation.
7. To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contract such facilities as may be necessary for their entry into Pakistan and stay therein for the performance of their work.
8. To maintain and use properly and effectively the facilities constructed and educational equipment purchased under the Grant.
9. To bear all the agreed expenses other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment.
10. To coordinate and solve any matters related which may arise with a third party and inhabitants living in the Project area during implementation of the Project.
11. To assign appropriate numbers of qualified teachers and management staffs for the Teachers' Training College for Female in Abbottabad.

S.O.

16

APPENDIX-3: List of Concerned Persons in Pakistan

■ Authorities in Federal Government

Ministry of Education

Mr. M. M. Usmani

Secretary

Dr. Abdul Aziz Khan

Joint Executive Advisor,  
Primary & Non Formal Education

Dr. Syed Fayyaz Ahmad

Deputy Educational Advisor

Ministry of Finance & Economic Affairs

Mr. Farhat Hussain

Joint Secretary  
Economic Affairs Division

Ministry of Women Development

Mr. Zafar Iqbal Rathore

Secretary

■ Authorities in N.W.F.P.

Planning, Environment & Development Department

Mr. Khalid Aziz Khan

Additional Chief Secretary

Mr. Mohammad Saleem Khan

Secretary

Mr. Abdul Jalil Mughal

Additional Secretary

Prof. Mohammad Ibrahim Beg

Advisor (Social Action Plan)

Mr. Mohammad Bmail

Research Officer

Mr. Aftar Said

Assistant Chief (Education)

Mr. M. Zahid Elahi

Economist,  
Chief of Section (Foreign Aid & Industry)

Finance Department

Ms. Ali Begum

Additional Secretary

Mr. Sultan Mahmood Khatak

Deputy Secretary

Communication and Works Department

Mr. Ghulam Hussain

Technical Officer,  
Office of the Chief Engineer

Education Department

Mr. Masoodur Rahman Masood

Secretary

Mr. Hifzur-Rehman

Additional Secretary

Mr. Farhad Qazi

Chief Planning Officer

- Education Department (Cont.)
- |                     |                     |
|---------------------|---------------------|
| Mr. M. Ashraf       | Statistical Officer |
| Mr. Sardar Muhammad | System Analyst      |
| Mr. Mian Said Karam | Planning Officer    |
- Directorate of Primary Education
- |                      |   |
|----------------------|---|
| Mr. Shah Jehan Khan  | Director  |
| Mr. Fazl-e-Manan     | Additional Director                                   |
| Mr. Habib Khan       | Deputy Director (P&D)                                 |
| Mr. Mian Saadat Shah | Deputy Director (P&D)                                 |
| Mr. Mohammad Fayyaz  | Deputy Director (Research Development and Evaluation) |
| Mr. Fida Hussain     | Assistant Director (Planning & Development)           |
| Mr. Khan Said        | Assistant Director (P&D, II)                          |
- Directorate of Secondary Education
- |                          |                             |
|--------------------------|-----------------------------|
| Mr. S. Abu Saeed Bacha   | Director                    |
| Mr. Mohammad Iqbal Malik | Deputy Director (P&S)       |
| Mr. Gul Zaman Khan       | Additional Director         |
| Mr. Qaisro Khan          | Assistant Director (S.N.E.) |
| Mr. Ayyaz Khan           | Statistical Officer         |
- District Education Officers
- |                         |   |
|-------------------------|---|
| Mr. Khurshid Ahmad      | District Education Officer (D.E.O.) (Male),<br>Primary Education (PE), Peshawar |
| Mr. Zar Khan Mohamad    | Assistant D.E.O. (Male), PE, Peshawar   |
| Ms. Shama Ambia         | Deputy D.E.O. (Female), PE, Peshawar  |
| Ms. Jamila Akhtar Malik | D.E.O. (Female), PE, Nowshera   |
| Ms. Mamona Khatoon      | D.E.O. (Female), PE, Abbottabad   |
- Bureau of Curriculum Development & Education Extension Services, Abbottabad
- |                                |   |
|--------------------------------|---|
| Mr. Mohammad Rafiq Khan Jadoon | Director                                |
| Mr. Mohamad Hussain            | Deputy Director                         |
| Mr. Fareed Khan Jadoon         | Subject Specialist, Science (Chemistry) |
- Educational Organizations in N.W.F.P.
- Peshawar University
- |                                |  |
|--------------------------------|--|
| Dr. Mian Bashir Ahmad Kakakhel | Director,<br>Institute of Education and Research |
| Mr. Javed Sikandar Rana        | Lecturer   |

- Alama Iqbal Open University  
 Mr. Javed Mahmood Kasuri Deputy Director, A.I.O.U., Islamabad  
 Mr. Sayed Hussain Shah Regional Director,  
 A.I.O.U. Regional Office, Peshawar  
 Mr. Mian Hidayatullah Assistant Regional Director,  
 A.I.O.U. Regional Office, Peshawar
- Government College for Elementary Teachers (G.C.E.T.) (Male)  
 Mr. Sadullah Qureshi Principal, G.C.E.T., Peshawar (Gulbahar)
- Government Agro-Technical Teacher Training Centre, Peshawar  
 Mr. G. S. Abbasi Principal
- Government College for Elementary Teachers (G.C.E.T.) (Female)  
 Ms. Zabun Nisa Rizavi Principal, G.C.E.T., Peshawar (Dabgari Gate)  
 Ms. Bano Iqbal Principal, G.C.E.T., Peshawar (In-Service)  
 Ms. Nayyar Hafeez Principal, G.C.E.T. (Female), Mansehra
- Other Authorities in N.W.F.P.
- Public Health Engineering Department  
 Mr. Misbahud-din Executive Engineer, Tubewell Division
- Peshawar Development Authority  
 Mr. Ihsanullah Housing Officer
- Water and Power Development Authority: WAPDA  
 Mr. Masood Shah Line Superintendent
- District Council  
 Mr. Aziz Dawar District Engineer
- Public Service Commission  
 Mr. Gul Alam Superintendent
- Project Management Unit, Second Urban Development Project  
 Mr. Altaf Ahmmad Director, Local Government/Coordination Unit



■ Donors of Other Countries

□ United States Agency for International Development: USAID

(Islamabad Office)

Mr. Nadir Abbas

Project Officer,  
Primary Education Development Project (PEDP),  
Social Sector Programs Division

Mr. Kaneez Fatima Mohomed Kassim

SDF Project Officer, NGO/PVO Coordinator,  
Women-in-Development Officer

Mr. Liaqat Ali Butt

Project Development Specialist,  
Office of Human Resources Development &  
Training

Ms. Lala Rukh

Program Assistant, PEDP

(Staffs Working in N.W.F.P.)

Dr. Wade M. Robinson

Chief of Party for Consultant's Team

Mr. Muhammad Jan Momand

Manager of Engineering Projects

Mr. Muhammad Sadiq Siddiqi

Administrative & Survey Coordinator

Ms. Farkhanda Akhter Bhatti

Training Associate

Mr. Tom Leblanc

EMIS Specialist

Ms. Mona G. Habib

Curriculum and Instruction Specialist

Ms. Nizakat Shaheen

Deputy Director,  
Instructional Material Development Centre

□ World Bank

Mr. Bashir Parvez

Project Advisor (Education)

□ Asian Development Bank: ADB

Mr. S. Laeeq Ahmad Shah

Deputy Project Manager,  
Primary Education Girls Project

□ Deutsche Gesellschaft Technische Zusammenarbeit: GTZ

Dr. Dieter Poschardt

Chief Technical Advisor,  
Primary Education Charsadda District  
Pak-German Project (PECD Project)

Prof. Qazi Aslam

Project Director

Mr. Neven Du Mont

Architect, Building Coordinator

Mr. Jajjad Ahmad Khan

Administration Officer

Mr. Junaid Shan

Legal Advisor

□ United Nations Educational, Scientific and Cultural Organization: UNESCO

Mr. Shabbir Hussain

Project Advisor,  
National Educational Management Information  
System (NEMIS)

■ Japanese Persons

□ Embassy of Japan

Koichi MURASE	First Secretary
Kiyoshi OGAWA	First Secretary
Masahiko TANOI	First Secretary

□ Japan International Cooperation Agency: JICA

Akihiro MITARAI	Resident Representative
Kazushige ARAGAKI	Deputy Resident Representative
Ryoju YAGINUMA	
Yukiko ODA	Women In Development Specialist

APPENDIX-4: Statement Showing Academic and Professional Qualification

ABBREVIATION

Step	Academic Degrees/Certificates	Duration	Schools	Subjects	Step	Professional Degrees/Certificates	Duration	Schools	Subjects
A1	/S.S.C.	10 Years	PS(5) + MS(3) + HS(2)	PS: (C) Ev/Is/Ma/Pe/PS/Sc/Ur MS: (C) Ev/Is/Ma/Pe/PS/Sc/Ur 2 of Ab/AC/Pe/Pe /Technical Subjects HS: (C) Ev/Is/PS/Ur (E) A : GM/GS & 2 of Ab/AC /Pa/Pe/Ur Sc: Bi/Ch/Ma/Ph	P1	P.T.C.	1 Year	CET	(C) PE/Ps/SA and all SSC subjects except English (C) Ah/Fa/No etc. (C) Reading of Holy Koran (E) 1 of AT/Ch/Cv/El/Es/Mc
A2	F.A./I.C. F.Sc./I.C. F.Sc. (H.E.) /I.C. D.Com.	2 Years 2 Years 2 Years 2 Years	HSS, IC HSS, IC CHE CC	(C) Ev/Is/PS/Ur (E) 3 of Cv/Ec/En/HP/Is/Pa/Ur (C) Ch/En/Is/Ph/PS/Ur (E) 1 of Bi/Ma (C) Ev/Ch/Is/Ma/Pe/PS/PS/Ur (C) Ev/Is/OR/PS/Ur (E) 1 of Ac/Sh	P2	/C.T. (Gen.) /C.T. (H.E.) C.T. (Agr.) C.T. (Tech.) P.E.T.	1 Year 1 Year 1 Year 1 Year 1 Year	CET CET ATC ATC PEC	(C) PE/Ps/SA and all SSC subjects except English (C) PE/Ps/SA and all SSC subjects with H.E. (C) PE/Ps/SA and agricultural subjects (C) EL/M/PE/PS/SA/Mw etc. (C) PE/Ps/SA and all physical education subjects (C) HE/PE/Ps/SA and all SSC subjects (C) (C) EL/M/PE/PS/SA/Mw etc. (C) 36 courses including some elective subjects (C) 36 courses including 20 technical subjects Advanced courses of B. Ed. Research on a special issue Research on a special issue Research on a special issue
A3	B.A. B.Sc. B.Sc. (H.E.) B.Com.	2 Years 2 Years 2 Years 2 Years	DC DC CHE CC	(C) Ev/Is/PS (E) 2 of Ec/En/Is/Lw/Pa/Po/St (C) Is/PS (E) 3 of Bi/Ch/Ma/MB/Ph/St (C) AC/En/Ch/Is/Ma/Pe/PS/PS (C) Ev/Is/OR/PS/Ur (E) 1 of Ac/Sh (E) 1 of Ec/En/Is/Pe/Po/Ur (E) 1 of Bo/Ch/Ph/Zo (E) 1 of Bc/Ch/Ec (E) 1 of Commercial Subjects	P3	B.Ed. (Gen.) B.Ed. (Tech.) M.A. (Edu.) M.Ed. (Tech.)	1 Year 1 Year 2 Years 2 Years	IER IER IER IER	(C) PE/Ps/SA and all SSC subjects (C) (C) EL/M/PE/PS/SA/Mw etc. (C) 36 courses including some elective subjects (C) 36 courses including 20 technical subjects Advanced courses of B. Ed. Research on a special issue Research on a special issue Research on a special issue
A4	M.A. M.Sc. M.Sc. (H.E.) M.Com.	2 Years 2 Years 2 Years 2 Years	PGC, UV PGC, UV CHE UV	(E) 1 of Ec/En/Is/Pe/Po/Ur (E) 1 of Bo/Ch/Ph/Zo (E) 1 of Bc/Ch/Ec (E) 1 of Commercial Subjects	P4 P5	M.Ed. (PS), M.Ed. (SS), M.Phil. (Edu.) Ed.D. Ph.D. (Edu.)	1 Year 2 - 3 Years 2 - 3 Years 3 - 5 Years	IER IER IER IER	Advanced courses of B. Ed. Research on a special issue Research on a special issue Research on a special issue

\*Remark : The above data were collected from Deputy Director, Directorate of Primary Education, N. F. P.

1. Degrees/Certificates
- S.S.C. : Secondary School Certificate  
I.C. : Intermediate Certificate  
F.A. : Faculty of Arts  
F.Sc. : Faculty of Science (H.E.) : Home Economics  
D.Com. : Diploma in Commerce  
B.A. : Bachelor of Arts  
B.Sc. : Bachelor of Science  
B.Com. : Bachelor of Commerce  
M.A. : Master of Arts  
M.Sc. : Master of Science  
M.Com. : Master of Commerce  
P.T.C. : Primary Teachers Certificate  
T.T. : Theology Teacher  
C.T. : Certificate of Teaching (Tech.) : Technical (Gen.) : General  
P.E.T. : Physical Education Teacher  
(Agr.) : Agriculture (Edu.) : Education  
M.Ed. : Master of Education (PS) : Primary School (SS) : Secondary School  
M.Phil. : Master of Philosophy  
Ed.D. : Doctor of Education  
Ph.D. : Doctor of Philosophy
2. Schools
- PS : Primary School  
MS : Middle School  
HS : High School  
HSS : Higher Secondary School  
IC : Intermediate College  
CHE : College for Home Economics (In Peshawar University)  
CC : Commerce College  
DC : Degree College  
PGC : Post Graduate College  
UV : University  
CET : College for Elementary Teachers  
DU : Darululum (Religious College)  
PI : Polytechnic Institute  
ATC : Agrotechnical College  
PEC : Physical Education College  
IER : Institute of Education and Research
3. Schools
- PS : Primary School  
MS : Middle School  
HS : High School  
HSS : Higher Secondary School  
IC : Intermediate College  
CHE : College for Home Economics (In Peshawar University)  
CC : Commerce College  
DC : Degree College  
PGC : Post Graduate College  
UV : University  
CET : College for Elementary Teachers  
DU : Darululum (Religious College)  
PI : Polytechnic Institute  
ATC : Agrotechnical College  
PEC : Physical Education College  
IER : Institute of Education and Research
4. Subjects
- (C) : Compulsory Subjects  
(E) : Elective Subjects  
Ab : Arabic  
Ac : Accounts  
AC : Art and Craft  
Ah : Ahadis (Islamic Subject)  
AT : Automobile Technology  
Bi : Biology  
Bo : Botany  
Ch : Chemistry  
Cv : Civics  
Ec : Economics  
El : Electricity  
En : English  
Es : Electronics  
Fa : Fiqah (Islamic Subject)  
GM : General Mathematics  
GS : General Science  
HE : History of Education  
HP : Health & Physical Education  
Is : History  
Is : Islamia  
Ko : Koran (Islamic Subject)  
Lw : Law  
Ma : Mathematics  
MA : Mathematics-A  
MB : Mathematics-B  
Mc : Mechanics  
Mk : Marketing Study  
Mw : Metalwork  
OR : Office Record  
Pa : Pashto  
Pe : Persian  
PE : Principle of Education  
Pg : Physiology  
Ph : Physics  
Po : Political Science  
Ps : Psychology  
PS : Pakistan Study (Social Study)  
SA : School Administration  
Sc : Science  
Sh : Short-hand  
St : Statistics  
Ur : Urdu  
Mw : Woodwork  
Zo : Zoology





JICA