



Government of the People's Republic of Bangladesh
Ministry of Communications
Roads and Railways Division

Roads and Highways Department

CENTRAL EQUIPMENT CONTROL CIRCLE

The Central Equipment Control Circle will be responsible for monitoring the operations and cost effectiveness of each of the pools, for purchasing new disposing of old equipment and ensuring that equipment is properly distributed between the Zonal pools in response to their utilization rates.

Duties and responsibilities are as follows:

- Development of procedures and document to be used for hiring out of equipment
- Developing and managing Quality Management and Health and Safety systems and procedures.
- Maintain Up-dated inventory of Veh./Eqpt./Plant etc.
- Preparation and Monitoring of the annual business plan.
- Approval, monitoring and control of budgets to maintain and replace the plant fleet
- Preparation of PCPs (for example replacement plant)
- Procurement of plant and equipment (including IT hardware and software)
- The assessment and re-fixing of hire rates for each item of plant at prevailing commercial levels
- Establishment of service and repair standards, and an ongoing preventative maintenance programme
- Prepare roller rehabilitation programme
- Development of training programmes for managers, operators, mechanics, heavy equipment drivers and vehicle drivers
- Client liaison and business development

Physical and financial monitoring system

Equipment inventory and physical condition

- Equipment specification
- Location
- Equipment condition
- Replacement equipment
- Equipment purchase
- Equipment scrapping

Lease information and hand-over

- Hire rates
- Contractors
- Lease against RHD contracts
- Issued contracts
- Lease period
- Faulty days
- Equipment delivered to Contractor or other Plant Pool
- Equipment returned form contractor or other Plant Pool
- Equipment in/out of workshop

Income and collection status

- Bill issued
- Collected Hire
- Collected security deposit
- Refunded hire
- Refunded security deposit

Expenditures and service status

- Service days
- Services level
- Operational costs
- Maintenance costs
- Accumulated service costs

Financial information through life cycle

- Original purchase costs
- Current replacement costs
- Original lifetime expectancy
- Current age
- National net book value

These parameters will be monitored in daily/week/monthly reports from the plant pool Depots to the Zonal Plant Pool and from the Zonal Plant in monthly reports to the CECC. A rough proposal for reporting formats is show in Figure 1, Figure 2 and Figure 3.

The lease Contract and list A,B,C and D is to be used at the Zonal Plant Pool for control of its equipment and financial status. Other reports to be sent from the Zonal Plant Poll to the CECC and the CE needs to be prepared as a summary of the lists.

List A-D from each zone can be fed to the central RHD MIS system/database to make Plant Pool progress information available for the RHD management in simple reports. This can be done by the CECC.

Plant Pool Contract Information

List A – List of equipment lease status

- D – Lease contract no
- E – Lease date
- F – Actual lease days transferred to calendar
- I – Equipment ref. number
- J – Equipment type
- L – Daily hire rate

List B – Monthly inventory of

- D – Lease contract no
- I – Equipment ref. number
- J – Equipment type
- K – Equipment specification
- L – Daily hire rate
- M - Lease days
- O – Faulty days
- P - Actual payable hire for each equipment

List C – List of contracts

- A – Name of contractor
- C – RHD contract reference no
- D – Lease contract no
- G – Road link no
- R – Security deposit
- S – Discount
- T – Total refund
- U – Total payable to RHD

List D – Service level at workshop

- I – Equipment ref. number
- J – Equipment type
- O – Faulty days

Plant Pool Invoice

Name of Contractor	<i>A</i>
Address	<i>B</i>

Lease Contract no: *D*

Lease Date: *E*

Contract period: *F*

RHD Contract Ref: *C*

Road Link no : *G*

Proforma Invoice							Actual Invoice	
Sl	Eq.#	Type	Spec	Hire rate	Lease days	Total hire	Faulty days	Refund
<i>H</i>	<i>I</i>	<i>J</i>	<i>K</i>	<i>L</i>	<i>M</i>	<i>N</i>	<i>O</i>	<i>P</i>

Grand total hire: *Sum N = Q*

+ Security deposit: *R*

- Discount: *S*

- Total refund: *T*

-Net payable to RHD: *U*

U

Monthly reports from Plant Pool Depots to Zonal Plant Pools

List A is to be filled in monthly from the logbook to keep control of under which contract each equipment is leased out, and the utilisation rate. Legend: S =service, Util = utilisation

List A – List of equipment lease status

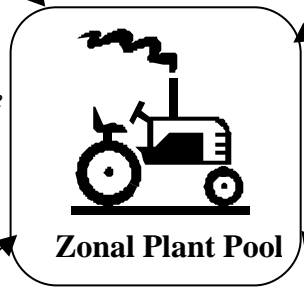
Equipment description			Calendar w/contract.no					Util.	
Sl.no	Type	Location	1	2	3	4	31	%	
1	Asp.pla.	Comilla	S	S	S	S	0	0	
2	Sl.comp	Noakhali	42	42	42	42	42	92	
3	Roller	Noakhali	0	0	157	157	157	74	
4	Truck	Sylhet	110						

List B is to be filled in monthly from the logbook and list A to keep control of the income, efficiency and condition of each equipment. Legend: Lea=lease, Serv=servicing, Fau=faulty, condition (A=very good, B=good, C=poor, D=unservicable), Theor hire = theoretical hire, ;Maintenance expenditure

List B – Monthly Inventory of equipment

Sl.	Type	Spec	Loc.	Rate	Lea day	Serv day	Fau day	Off day	Con dit	Util %	Theor hire	Main exp
1	Asp.pla	Xyz	Com	3500	0	20	0	10	D	0	0	3000
2	Slcomp	Klm	Noak	3000	27	0	0	3	A	92	81000	5000
3	Roller	10t	Noak	2000	24	3	3	0	B	74	48000	9000
4	Truck	5t	Syl	3000	10							

List D is to be filled in daily from the workshop logbook to keep control of efficiency at workshop. Legend: Ser.lev= fixed service level, W = received and waiting, S= in service, C= completed, H = handover



List C is to be filled in monthly from the accounts and lists A+B to keep control of the invoices, actual collection, refunds and balance for each contract and to relate each contract to RHD contracts and road links. Legend in serial: contract number, RHD contract no, road link, security deposit, total hire, actual collection, refunds, balance

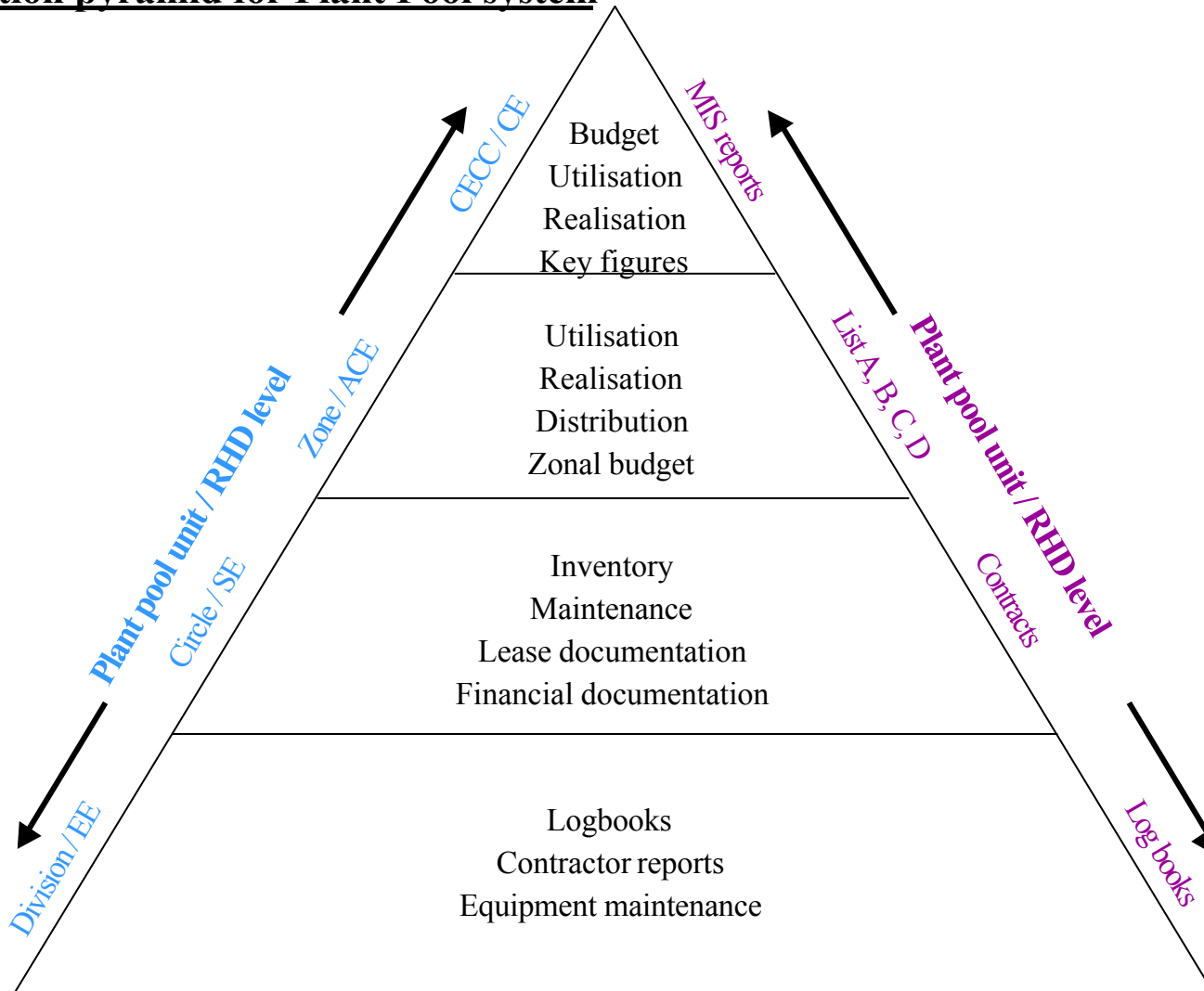
List D – Service level at workshop

Equipment for service				Calendar w/service status					Effic.	
Sl	Type	Loc	Ser.lev	1	2	3	4	31	%	
1	Asp.pla.	Com	5 days	W	W	W	W	W	10	
2	Sl.comp	Noa	2 days	0	0	0	0	0	-	
3	Roller	Noa	3 days	S	C	H		0	95	
4	Truck	Syl	1 day	C	H					

List C – List of contracts

Contract data				Financial status				
Con#	Name	RHD#	Link	Secdep	T.Hire	Coll.	Ref.	Bal
42	Hasan	1234	782	100000	100000	180000	11000	9000
94	Luna	2341	714	80000	80000	140000	20000	0
110	Khan	3412	836	200000	200000	400000	0	0
157	M&M	4123	589	50000				

Information pyramid for Plant Pool system



Procurement

One of the major function of the central Equipment Control Circle is Procurement of Vehicle / Equipment / Plants / Ferry Engines / Propulsion Unit & Spare parts there of Clearing of consignment, Storage & distribution.

Presently the circle is working on the following Project:

1. Procurement of Equipment, Machinery and Vehicle for Roads & Highway Department (2nd revised)

Project cost - 5364.00 lacs.

This Project was approved by ECNEC on 3rd December, 1997 with the implementation period from 1997-2000 with cost of 3450.00 lac.

The following Equipment / Machine / Vehicles are procured upto 2000-2001.

Items	Quality	Expenditure incurred		
		Local	F.E	Total
a) 3- wheel road roller (9-12)	28 Nos.		560.00	560.00
b) Vibrating soil compactor (6-7.5 Tons)	16 Nos.		480.00	480.00
c) Wracker / Toe crane (20-30 Tons)	1 Nos.		45.00	45.00
d) Low bed trailer (30 Tons)	2 Nos.		90.00	90.00
e) Mini asphalt plant	5 Nos.		200.00	200.00
f) Mini vibrating plate compactor	11 Nos.		22.00	22.00
g) Mini vibrating roller	32 Nos.		160.00	160.00
h) Flat Bed Maintenance Truck	16 Nos.	320		320.00
i) Jeep	20 Nos.	340		340.00
g) Spare Parts for Different Equipment's and Machinery	LS		150.00	150.00
h)Custom duty, insurance, others	LS	128.02		128.02
i) VAT. AIT. and others	LS	341.40		341.40
j) Overhead Charges 7% (Debited to AGB)		165.58		165.00
Total:		1295.00	1707.00	3002.00

But considering the urgent requirement of Vehicles / Equipment & on recommendation of IMED for replacement of 62% of Equipment and Machineries and 85% of Vehicles by 1997 the P.P. was submitted for 2nd revision from the original cost of 3450.00 to 5364.00 lacs and implementations period from 1997-2003.

A statement showing total expenditure incurred so far upto June 2001 and the progress of work is stated below :

Total Expenditure Incurred so far upto June ' 2001 and Progress of work

Items	Work done	Expenditure Incurred			Balance	Expenditure to be incurred		
		Local	F.E	Total		Work	Local	F.E
a) 3- wheel road Roller (8-12)	28 Nos	584.64		546.64	15 Nos	300.00		300.00
b) Vibrating soil compactor (6-7.5 Tons)	20 Nos	340.00		340.00	20Nos	340.00		340.00
c) Wracker / Toe crane (20-30 Tons)					2 Nos	200.00		200.00
d) Soil compactor (10-20 Tons)	16 Nos	411.93		411.93				
e) Mini vibrating Roller	8 Nos	40.00		40.00				
f) Flat Bed Maintenance Truck	18 Nos	270.00		270.00				
g) Jeep	40 Nos	846.00		846.00				
h) Vibrating Tandem Road Roller (2 -3.5 Tons)					50 Nos	600.00		600.00
i) Welding Generator				285.00	10 Nos	80.00		80.00
j) Spare Parts for Different Equipment's and Machinery		285.00		339.00				
k) Custom duty, insurance, others		339.00		196.38		240.00		240.00
l) VAT. AIT. and others		196.38		119.38		112.00		172.00
m) Overhead Charges 7% (Debited to AGB)		119.05		119.05				
Total:		3432.00		3432.00		1932.00		1932.00

During the financial year 2001-2002 Tender for Procurement of 5 Nos. 2-Wheel Road Roller has been processed and expected to be procured in 2002-2003.

2. Procurement of 100 Nos. 3-Wheel Road Rollers under Danish Mixed Credit. Project cost -2750 Lac.

MAIN OBJECTIVE

The objective of this project are:-

To rehabilitate and construct National/Regional Highways and Feeder Roads under. Roads and Highways Department damaged by last devastative flood in 1998.

To repair and maintain flood damage roads under Roads & Highways Department of Bangladesh.

To replace unserviceable and very old non standard Roller.

To maintain standardization of Roller fleet by adding 100 Nos. JM Roller to the exiting 307 Nos. same type Roller.

To provide training in maintenance and repair of the existing and new Rollers to appropriate offices of Mechanical Wing of RHD.

Under the project provision has been made for procurement of 100 Nos. Steel Drum Roller out of which 75 Nos. are 3-wheel Road Roller & 25 Nos. Tandem Road Roller. The cost of the Project has been estimated at Tk. 2750.00 lacs.

Presently RHD has a total of 686 Roller out of which 307 Nos. are J.M. Road Rollers which have been procured between the year 1976 to 2000. If further 100 Nos. new J.M. Road Rollers are added to this fleet the number of good quality and effective Rollers will increase.

Major Items of The Project

(Taka in lacs)

No.	Name of items	Quantity	Estimated cost		Total	Remarks
			Local (CD & VAT)	F.E		
1	2	3	4	5	6	7
	Purchase of 3-Wheel Steel Drum Road Roller (8-12 Ton)	75 No.	180.00	1500.00	1680.00	
	Purchase of 2-Wheel Steel drum Tandem Roller	25 No.	60.00	500.00	560.00	
	Spare parts of Rollers		150.00	300.00	450.00	
	Training			60.00	60.00	
	Grand Total		390.00	2360.00	2750.00	

Total Taka 275 Million.

3. Procurement of Equipment & Machinery for Flood Rehabilitation work under Japanese Grant.

Cost :- 2513.01 Lac.

During the last devastating flood of 1998, almost the whole country was submerged resulting in the damage of the total infrastructure. The damage to Road network system was severe and was estimated at about Taka Fifteen thousand Crore. Roads & Highways Department took up the post flood rehabilitation works of about 11,000 K.M. paved road and such a gigantic task could not be faced with the fleet of old & outdated existing vehicle & Equipment of RHD. Govt. of Japan extended a grant of 1630 Million Yen to Bangladesh for procurement of Equipment /Machinery for flood Rehabilitation work out of which RHD was allocated 570.49 Million Yen.

The following vehicle /equipment were procured against Japanese Grant which are now in use in this Department.

a). Hydraulic Crane (20 ton)	=	3 Nos.
b). Wrecker (25 ton)	=	2 Nos.
c). Trucks (5-7 ton)	=	36 Nos.
d). Excavator (0.05m) ³	=	4 Nos.
e). Bull Dozer (100 H.P)	=	4 Nos.
f). Wheel Loader (130 HP)	=	4 Nos.
g). Tractor Trailer(25 ton)	=	4 Nos.
h). Motor Grade (135 HP)	=	2 Nos.
i) Truck Crane (10 ton)	=	2 Nos.
Total	=	61 Nos.

4. Procurement of Inspection Vehicle (Jeep) for RHD

Cost:- 999.78 Lac.

Road Network is the Chief mode of surface communication. RHD has a network of 21000 K.M. with about 100 Ferry Ghat which need constant supervision by Road Engineers & as such Inspection Vehicle (Jeep) is a must. Inspection vehicles owned by RHD are very old & as per recommendation made in IMED report 85% of Inspection Vehicles are to be replaced.

A P. C. P for procurement of 38 Jeeps from Government owned Progati Industries Ltd. has have been prepared.

5. Procurement for Portable Weigh Bridge.

Cost:- 540.00 Lac.

The main objective of the Project is to procure 20 Nos. of Portable Weigh Bridge which are to be placed at different locations of the Highways of RHD to protect them from over loaded Buses & Trucks. For want of adequate number of weigh Bridge on the Roads & Highways, these are prematurely damaged and at the same time accidents are taking place all too frequently causing loss of valuable life & personnel. 2 Nos. Weigh Bridge were procured which are in operation in Chittagong & Shylhet.

A P.C.P. for procurement of 20 Nos. Portable Weigh Bridge under Swiss grant has been prepared.

EQUIPMENT HIRE ARRANGEMENTS

The new Contracting system shall be implemented from 1st June 2002. The biggest impact of the new contracting system is that the contractor is responsible for providing all his own equipment on his project i. e. the contractor retains full contractual liability for all performance on the works - and is deemed to have the right equipment available for the job when he signs the agreement to undertake the work.

At the moment the contractors are not well equipped and it would take some time before the contractors get their own fleet of equipment. On the other hand the Department has a large fleet of vehicles / Equipment's which can be hired out to the intending contractors and as such respective Zonal Plant Pools are underway. The Zonal committee headed by the additional Chief Engineer of the respective Zone will manage the pools. The pools will hire out equipment directly to the contractors at commercial rates approved by the Chief Engineer and also in accordance with standard terms & conditions. A few salient features are Hire charge for equipment shall be on a daily basis not on the volume of works.

Contractors working on RHD contracts shall always get priority in the allotment of equipment. Equipment will not generally be hired to the contractors working on large contracts in excess of Taka: 2.00 Crore unless there are no other request for a particular items of equipment. This is to encourage larger contractors to become self sufficient in Equipment.

Hire agreement should be in conformity with existing Rules & Regulations and it would specify the conditions under which the equipment is hired and any security which has to be lodged. The standard commercial rates will be subject to periodic revision to reflect the updated cost of purchase and operation of the equipment and to ensure general conformity with local commercial rates including other Government Department.

The latest enhanced hire charge rate for vehicle / equipment of RHD was approved by the Chief Engineer on 17/06/2002 is in effect.

APPROVED HIRE CHARGE RATE FOR VEHICLE & EQUIPMENT OF ROADS & HIGHWAYS DEPARTMENT

Sl. No	NAME OF VEHICLE/EQUIPMENT	NEW APPROVED RATE (TAKA)	REMARKS
1	2	3	4
1	All 2/3 Steel Wheel Road Rollers(8-12 tons)	3,000.00	1. All rate are 8(eight) hour daily. 2.Rates are approved without fuel. 3. 4 hour or fraction is Equal to half day.
2	Vibratory Soil Compactor (10 tons)	4,000.00	
	Vibratory Soil Compactor (6-7.5 tons)	3,500.00	
3	Mini Asphalt Plant (7-9 tons)	3,500.00	
4	Vibratory Roller (Ride on)	2,000.00	
5	Vibratory Roller (Walk behind)	750.00	
6	Flat Body Truck (3 tons)	2,000.00	
7	Flat Body Truck (5 tons)	3,000.00	
8	All Dump / Tripping Trucks	3,000.00	
9	Water Tanker (Truck Mounted)	2,900.00	
10	Water Tanker (towed by Tractor)	1,500.00	
11	Tyre Roller	3,000.00	
12	End Loaders	5,000.00	
13	Motor Graders	5,000.00	
14	All Bull Dozer / Tractor	5,000.00	
15	KATO Crane (upto 5 tons)	3,000.00	
16	KATO Crane 20 tons (Truck Mounted)	10,000.00	
17	Leterneau Crane 20 tons	4,000.00	
18	P & H Crane 25 tons	5,000.00	
19	Excavator(Medium Size)	6,000.00	
20	Tractor (Frame)	1,700.00	
21	Mechanical Road Sweeper Broom	1,000.00	
22	Concrete mixture (10 cft)	900.00	
23	Concrete Mixture (5 cft)	500.00	
24	Concrete Vibrator	300.00	
25	Plate compactor	500.00	
26	Trailor (Mini)	400.00	
27	Trailor 20 tons Russian	3,000.00	
28	Bitumen Distributor	3,000.00	
29	Bitumen Heater & Decanter	4,500.00	
30	Bitumen Heater	600.00	

