

ANNEX 13 DETAILS OF THE PROJECT COSTS

1. Estimate of the Hardware and Basic Software: Plan A

	Phase 1	Phase 2	Total
Hardware	7,487,900	295,000	7,782,900
Basic Software	2,643,536	128,610	2,772,146
Total	10,131,436	423,610	10,555,046

ESTIMATE ON THE HARDWARE AND BASIC SOFTWARE: PLAN A

(US \$)

Items	Unit Price	Q'ty	Price	Phase 1		Phase 2	
				Hardware	Software	Hardware	Software
1. Development System							
At Kyrgyz							
Server systems	210,000	1	210,000	210,000			
Client systems	35,000	10	350,000	350,000			
Peripherals	5,000	2	10,000	10,000			
Accessories			37,000	37,000			
Basic software	TP Monitor, DB		765,776		382,888		382,888
Develop. software	Compiler, etc		100,000		50,000		50,000
Sub Total			1,472,776	607,000	432,888		432,888
Outside Kyrgyz							
Server systems	210,000	1	0	210,000		-210,000	
Client systems	35,000	10	0	350,000		-350,000	
Peripherals	5,000	2	0	10,000		-10,000	
Accessories			0	37,000		-37,000	
Basic software	TP Monitor, DB		0		382,888		-382,888
Develop. software	Compiler, etc		0		50,000		-50,000
Sub Total			0	607,000	432,888	-607,000	-432,888
Total of dev. systems			1,472,776	1,214,000	865,776	-607,000	0
2. General Processing System							
Server systems	225,000	2	450,000	450,000			
Secondary servers	35,000	2				70,000	
Client systems	15,000	5	75,000	75,000			
Peripherals	5,000	5	25,000	15,000		10,000	
Accessories			54,000	54,000			
Basic software	DB		257,220		257,220		
Communication	Router		100,000	100,000			
Sub Total			961,220	694,000	257,220	80,000	0
Total	(No. of sites)	1	1,031,220	694,000	257,220	80,000	
3. NBK-Net							
Server system	210,000	1	210,000			210,000	
Server system	85,000	1	85,000			85,000	
Client systems	15,000	5	75,000			75,000	
Peripherals	5,000	3	15,000			15,000	
Accessories			57,000			57,000	
Basic software	DB		128,610				128,610
Communication	Router		100,000			100,000	
Sub Total			670,610			542,000	128,610
Total	(No. of sites)	1	670,610			542,000	128,610
4. Switching System							
Server systems	105,600	2	211,200	211,200			
Secondary servers	35,000	2	70,000			70,000	
Client systems	15,000	6	90,000	90,000			
Peripherals	110,000	1	110,000	110,000			
Accessories			32,000	32,000			
Basic software	DB		187,220		187,220		
Communication	Intelli. hub		301,500	301,500			
Sub Total			1,001,920	744,700	187,220	70,000	
Total	(No. of sites)	1	1,001,920	744,700	187,220	70,000	

(US \$)

Items	Unit Price	Qty	Price	Phase 1		Phase 2	
				Hardware	Software	Hardware	Software
5. Node System in Bishkek							
Server systems	105,600	2	211,200	211,200			
Secondary servers	35,000	1	35,000			35,000	
Client systems	15,000	8	120,000	120,000			
Peripherals	110,000	1	110,000	110,000			
Accessories			30,000	30,000			
Basic software	DB		187,220		187,220		
Routers, Modems, Telexes			143,000	143,000			
Sub Total			836,420	614,200	187,220	35,000	
Total	(No. of sites)	1	836,420	614,200	187,220	35,000	
6. Node System in Osh							
Server systems	95,000	2	190,000	190,000			
Secondary servers	35,000	1	35,000			35,000	
Client systems	15,000	6	90,000	90,000			
Peripherals	110,000	1	110,000	110,000			
Accessories			28,000	28,000			
Basic software	DB		187,220		187,220		
Routers, Modems, Telexes			133,000	133,000			
Sub Total			773,220	551,000	187,220	35,000	
Total	(No. of sites)	1	773,220	551,000	187,220	35,000	
7. Node Systems in Other regions							
Server systems	85,000	2	170,000	170,000			
Secondary servers	35,000	1	35,000			35,000	
Client systems	15,000	3	45,000	45,000			
Peripherals	110,000	1	110,000	110,000			
Accessories			26,000	26,000			
Basic software	DB		187,220		187,220		
Routers, Modems, Telexes			131,500	131,500			
Sub Total			704,720	482,500	187,220	35,000	
No. of sites				4	4	4	
Total			2,818,880	1,930,000	748,880	140,000	
8. Terminal Systems							
Base system	3,500	1	3,500	3,500			
IC card reader	1,300	1	1,300	1,300			
Comm. hardware	1,000	1	1,000	1,000			
Comm. software	300	1	300		300		
Basic software	400	1	400		400		
Sub Total			6,500	5,800	700		
No. of sites			300	300	300		
Total			1,950,000	1,740,000	210,000		
Grand Total			10,555,046	7,487,900	2,643,536	295,000	128,610

Estimate of the Hardware and Basic Software: Plan B

	(US\$)		
	Phase 1	Phase 2	Total
Hardware	7,688,000	360,000	8,046,700
Basic Software	2,894,980	128,610	3,023,590
Total	10,582,980	488,610	11,070,290

ESTIMATE ON THE HARDWARE AND BASIC SOFTWARE: PLAN B

(US \$)

Items	Unit Price	Q'ty	Price	Phase 1		Phase 2	
				Hardware	Software	Hardware	Software
1. Development System							
At Kyrgyz							
Server systems	210,000	1	210,000	210,000			
Client systems	35,000	10	350,000	350,000			
Peripherals	5,000	2	10,000	10,000			
Accessories			37,000	37,000			
Basic software	TP Monitor, DB		957,220		478,610		478,610
Develop. software	Compiler, etc		100,000		50,000		50,000
Sub Total			1,664,220	607,000	528,610		528,610
Outside Kyrgyz							
Server systems	210,000	1	0	210,000		-210,000	
Client systems	35,000	10	0	350,000		-350,000	
Peripherals	5,000	2	0	10,000		-10,000	
Accessories			0	37,000		-37,000	
Basic software	TP Monitor, DB		0		478,610		-478,610
Develop. software	Compiler, etc		0		50,000		-50,000
Sub Total			0	607,000	528,610	-607,000	-528,610
Total of dev. systems			1,664,220	1,214,000	1,057,220	-607,000	0
2. General Processing System							
Server systems	250,000	2	500,000	500,000			
Second servers	35,000	2				70,000	
Client systems	15,000	5	75,000	75,000			
Peripherals	5,000	5	25,000	15,000		10,000	
Accessories			54,000	54,000			
Basic software	DB		257,220		257,220		
Communication	Router		100,000	100,000			
Sub Total			1,011,220	744,000	257,220	80,000	0
Total	(No. of sites)	1	1,081,220	744,000	257,220	80,000	
3. NBK-Net							
Server system	210,000	1	210,000			210,000	
Server system	150,000	1	150,000			150,000	
Client systems	15,000	5	75,000			75,000	
Peripherals	5,000	3	15,000			15,000	
Accessories			57,000			57,000	
Basic software	DB		128,610				128,610
Communication	Router		100,000			100,000	
Sub Total			735,610			607,000	128,610
Total	(No. of sites)	1	735,610			607,000	128,610
4. Switching System							
Server systems	150,000	2	300,000	300,000			
Second servers	35,000	2	70,000			70,000	
Client systems	15,000	6	90,000	90,000			
Peripherals	110,000	1	110,000	110,000			
Accessories			32,000	32,000			
Basic software	DB		217,220		217,220		
Communication	Intelli. hub		301,500	301,500			
Sub Total			1,120,720	833,500	217,220	70,000	
Total	(No. of sites)	1	1,120,720	833,500	217,220	70,000	

Estimate of the Hardware and Basic Software: Plan B

	(US\$)		
	Phase 1	Phase 2	Total
Hardware	7,688,000	360,000	8,046,700
Basic Software	2,894,980	128,610	3,023,590
Total	10,582,980	488,610	11,070,290

2. Detailed List of Software Development

Phase I			
	<u>Design</u>	<u>Development</u>	<u>Total</u>
Network Development	93	75	168
Application Development	114	133	247
Total	207	208	415
			(man/month)
Development Cost:			\$ 4,980,000

Phase II			
	<u>Design</u>	<u>Development</u>	<u>Total</u>
Network Development	-	-	-
Application Development	46	50	96
Total	46	50	96
			(man/month)
Development Cost:			\$ 1,152,000

Development Cost Grand Total:	\$ 6,132,000
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**ESTIMATION ON NETWORK DEVELOPMENT
(NODE SYSTEM)**

Development Item	Design	Development
1 Object design	5	
2 Database design	4	
3 File design	5	
4 Process design	5	
5 Network control function	5	5
6 Operation management function	3	3
7 Network structural information maintenance	3	3
8 File transfer function	3	3
9 Communication protocol setup	3	4
10 Message transfer function	4	5
11 Address route inspection function	2	2
12 Error message creation function	3	4
13 Data impute function	3	3
14 FD/MT impute function	1	1
15 Remote terminal control function	2	2
16 Reporting and reply to inquiry	3	5
17 Back up recovery	5	5
Sub-total	59	45
Grand-total	104 man-months	

**ESTIMATION ON NETWORK DEVELOPMENT
(SWITCHING SYSTEM)**

Development Item	Design	Development
1 Object design	0	
2 Database design	3	
3 File design	4	
4 Process design	4	
5 Network control function	5	5
6 Operation management function	4	8
7 Network structural information maintenance	1	1
8 Message transfer function	2	2
9 Communication protocol setup	2	3
10 Address route inspection function	0	0
11 Error message creation function	4	4
12 Report creation/Reporting and reply inquiry	3	5
13 Back up recovery	2	2
Sub-total	34	30
Grand-total	64 man-months	

Estimation on Payment Systems Development Process (Application Portion) 2/6

		Development Item	Process (man/month)			Note
			Design	Development	Total	
Common	(1) File design		3	1	4	
	(2) I/O interface design		3	1	4	
Transfer Process	(3) I/O preprocessing		2	3	5	
	(4) Update of file, journal		3	3	6	
	(5) Message output (to MSW system)		1	1	2	
	(6) Error handling		2	2	4	
Settlement	(7) Inter-bank settlement function		5	5	10	Transfer request of current deposit account to NBK-net
Inquiry, others	(8) Intra-bank settlement function		5	5	10	Head, branch office totalling process
	(9) Inquiry on remittance/receipt list		2	4	6	
	(10) Inquiry on summary of remittances and receipts		2	4	6	
	(11) Other inquiry function (about 5)		5	10	15	
	(12) Reference documents (about 10)		6	4	10	
Operation	(13) Forward summary of remittances and receipts		2	2	4	
	(14) Create transmission file for the message carried over		2	2	4	
	(15) Systems operation (start/end process, input rejection)		2	3	5	
	(16) Systems operation (security management)		10	10	20	
	(17) Systems operation (registration management, DB/files)		2	3	5	
	(18) Systems operation (management for the recovery of failures)		3	5	8	
	Total		60	68	128	128 X \$ 12,000 = \$ 1,536,000

		Development Item	Process (man/month)			Note
			Design	Development	Total	
RCC Data Entry	(1) Payment transfer message (creation and send-out)		1	2	3	
	Total		1	2	3	3 X \$ 12,000 = \$ 36,000

Estimation on Payment Systems Development Process (Application Portion) 3/6

4. Automatic Transfer Service (Gross Settlement)

RCC Data Entry	Development Item	Process (man/month)			Note
		Design	Development	Total	
	(1) Automated transfer message (creation/send out)	1	2	3	
	Total	1	2	3	3 X \$ 12,000 = \$ 36,000

5. Office System Dedicated (Transfer System)

Common Transfer-related Process	Development Item	Process (man/month)			Note
		Design	Development	Total	
	(1) File design	2	1	3	
	(2) I/O interface design	2	1	3	
	(3) Transfer message processing	2	2	4	Customer transfer/fund transaction
	(4) Change/cancellation processing	1	2	3	
	(5) Authorization processing/transfer	1	2	3	
	(6) Notification of reception processing	1	2	3	
	(7) Broadcast function	1	2	3	
	(8) Message printer function	2	3	5	
	(9) Systems operation (security management)	5	5	10	
	Total	17	20	37	37 X \$ 12,000 = \$ 444,000

6. Operation Day of Interface

File Conversion	Development Item	Process (man/month)			Note
		Design	Development	Total	
	(1) Creation of sending file (convert)	2	2	4	Conversion from operation day file to new payment systems file
	Total	2	2	4	4 X \$ 12,000 = \$ 48,000

Estimation on Payment Systems Development Process (Application Portion) 5/6

Transfer Process	Development Item	Process (man/month)			Note
		Design	Development	Total	
Transfer System	(1) Respond to message type addition	1	1	2	
	(2) Transfer/receive of accounting information	2	2	4	
	Total	3	3	6	6 X \$ 12,000 = \$ 72,000

Phase II

Estimation on Payment Systems Development Process (Application Portion) 6/6

Phase II

6. Transfer Service for Foreign Exchange Som Clearing Message

Development Item	Process (man/month)			Note
	Design	Development	Total	
(1) FX transfer message processing	2	2	4	
(2) Change/cancellation processing	1	1	2	
(3) Authorization processing/transfer	2	2	4	
(4) Respond to additional message type	1	1	2	Request of NBK current deposit account transfer
(5) Reference document (about 4)	2	2	4	
Total	8	8	16	16 X \$ 12,000 = \$ 192,000

7. Expansion of Payment Transfer Service (Additional Processing at the Day-end)

Development Item	Process (man/month)			Note
	Design	Development	Total	
(1) FD exchange processing	1	1	2	
(2) Calculation of net position by days	2	2	4	
(3) Send of net position transfer message	2	2	4	
(4) Data transfer of other clarification	1	1	2	
(5) Reference document (about 2)	1	1	2	
(6) Addition of carry over Q	2	3	5	Both intra- and inter-processing
(7) Reference document (about 2)	1	1	2	
Total	10	11	21	21 X \$ 12,000 = \$ 252,000

8. Expansion of Automated Transfer Service (Respond to Vice Versa Message, Additional Process at the Day-end)

Development Item	Process (man/month)			Note
	Design	Development	Total	
(1) FD exchange processing	1	1	2	Banks which desire in the same region
(2) Calculation of net position by days	2	2	4	
(3) Send of net position transfer message	2	2	4	Vice versa netting process
(4) Respond to additional message type	1	1	2	Vice versa message
(5) Reference document (about 2)	1	1	2	
(6) Addition of carry over Q	2	3	5	Both intra- and inter-processing
(7) Reference document (about 2)	1	1	2	
Total	10	11	21	21 X \$ 12,000 = \$ 252,000

3. CALCULATION DATA

(1) Hardware Purchase

1) Condition

- All hardwares are assumed to be purchased in Japan at listed price in the market.
- All hardwares together with other imported equipment and goods are assumed to be purchased on CIF Bishkek basis, and such goods are transported by air.
- All imported goods are assumed to be exempted import duty, excise tax or other levies.

2) Listed Prices of Hardwares in Market

	<u>Phase-I</u>	<u>Phase-II</u>
a. Development System	1,214,000	-607,000
b. General Purpose Processing System	694,000	80,000
c. NBK-NET	0	542,000
d. Switching System	744,700	70,000
e. Node System (Bishkek)	614,200	35,000
f. Node System (Osh)	551,000	35,000
g. Node System (Other region)	1,930,000	140,000
h. Terminal System	1,950,000	0
Total	7,487,900	295,000

3) Distribution Schedule of Cargoes

Bishkek	:	378 p'ces	18,008kg
Osh	:	20 p'ces	685kg
Jalal-abad	:	15 p'ces	578kg
Karakol	:	15 p'ces	578kg
Naryn	:	15 p'ces	578kg
Talas	:	15 p'ces	578kg
Total		458 p'ces	<u>21,005kg</u>

4) Packing Specification

Craton Box – export standard packing by air

5) Transportation Cost

	<u>Phase-I</u>	<u>Phase-II</u>
Air Freight (Japan-Bishkek)	\$172,000	\$17,000
Custom Clearance/Cargo handling	\$2,100	\$700
Total	\$174,100	\$17,700

6) Local Transportation

		<u>Trucking Charge</u>	<u>Phase-I</u>	<u>Phase-II</u>
(1) Bishkek Airport-NBK	(18,008kg)	@\$50/Truck	250	100
(2) -Osh	(685kg)	@\$500/Truck	500	300
(3) -Jalal-abad	(578kg)	@\$500/Truck	500	500
(4) -Karakol	(578kg)	@\$450/Truck	450	500
(5) -Naryn	(578kg)	@\$500/Truck	500	500
(6) -Talas	(578kg)	@\$300/Truck	300	300
Total	(21,005kg)		2,500	2,300

7) Summary

	<u>Air Freight</u>	<u>Custom Clearance/ Cargo Handling</u>	<u>Local Transportation</u>	<u>Total</u>
Phase-I	\$172,000	\$2,100	\$2,500	\$176,600
Phase-II	\$17,000	\$700	\$2,300	\$20,000
Total	\$189,000	\$2,800	\$4,800	\$196,600
	(Foreign)	(Local)	(Local)	

4. Estimation on Air Conditioners

(1) 5,000kcal Aircon :	US\$7,000/Unit
Auxiliary Materials	US\$700/Unit
Export Packing (Carton) :	US\$200/Unit
Air Freight (Chartered rate) : @US\$6.40 x 120 kg =	US\$768
Insurance : (1%)	US\$100

	<u>Loading Charge</u>	<u>US\$200</u>
	<u>Total CIF Bishkek</u>	<u>US\$8,968/Unit</u>
(2)	2,500kcal Aircon :	US\$2,100/Unit
	Auxiliary Materials	US\$300/Unit
	Export Packing (Carton) :	US\$100/Unit
	Air Freight (Chartered rate) : @US\$6.40 x 30 kg =	US\$192
	Insurance : (1%)	US\$40
	<u>Loading Charge</u>	<u>US\$150</u>
	<u>Total CIF Bishkek</u>	<u>US\$2,882/Unit</u>
5,000kcal:	@US\$8,968 x 8 units =	US\$71,744
2,500kcal:	@US\$2,882 x 20 units =	US\$57,640
	<u>Total CIF Bishkek</u>	<u>US\$129,384</u>
Weight :	5,000kcal : @120kg x 8 =	960kg
	2,500kcal : @30kg x 20 =	600kg
	<u>Total</u>	<u>1,560kg</u>

5. Estimates on Office Equipment

(1)	Fax	
	NTT Fax J-300: @¥390,000 x 6 =	¥2,340,000
(2)	Telephone	
	Matsushita VJH120: @38,600 x 10 =	¥386,000
(3)	P/C Dynabook V486J @¥245,000 x 6 =	¥1,470,000
	Software @¥100,000 x 6 =	¥600,000
(4)	Printer (Laser)	
	Canon LLH304E @¥694,000 x 6 =	¥4,164,000
	Ricoh SP-10PS @681,000	
	Option + Soft @¥344,000 x 6 =	¥2,064,000
	Tonner ¥30,000 + Ink @¥4,500	¥180,000

(5)	Copier Ricoh IMA610 MF-150 Model-2	
	@¥800,000 x 6 =	¥4,800,000
	Soft @¥100,000 x 6 =	¥600,000
(6)	Shredder @¥233,000 x 6 =	¥1,398,000
(7)	Paper Cutter @¥17,500 x 6 =	¥105,000
(8)	Stationary Stack @¥51,000 x 6 =	¥306,000
	Total	<u>¥18,413,000</u>

Consumable

Stationeries @¥1,000,000 x 6 =	¥6,000,000
Paper @¥5,250 x 60 =	¥315,000
Ink for Laser Printer @¥4,500 x 60 =	¥270,000
Total	<u>¥6,585,000</u>

Weight Data

Fax	@50kg x 6 =	300 kg
Telephone	@2kg x 10 =	20 kg
P/C	@5kg x 6 =	30 kg
Printer	@50kg x 6 =	300 kg
Copier	@60kg x 6 =	360 kg
Shredder	@50kg x 6 =	300 kg
Paper Cutter	@7kg x 6 =	42 kg
Stationary, etc.	@200kg x 6 =	1,200 kg
		<u>2,525 kg</u>

6. Estimates on Installation Cost

(1) Air Conditioner : @4.0 man/day/unit x (8 unit + 20 unit) = 112 man-day			
	1) Direct Labor Cost : @US\$5/man-day x 112 =		US\$560
	General O.H.+Tax+Profit =		US\$560
	<u>Sub-Total</u>		<u>US\$1,120</u>
		Tax : 31.60%	
	2) Supervision by Foreign Engineer		
	Absence Fee @\$400/day x 30 =		US\$12,000
	Accommodation @\$80 x 30 =		US\$2,400
	Transportation \$200 x 5 sites =		US\$1,000
	Perdiem Allowance @\$50 x 30 days =		US\$1,500
	Other Expenses @\$20 x 30 days =		US\$600
	<u>Sub-Total</u>		<u>US\$17,500</u>
		Tax : 0	
	3) Local Transportation Cost		
	Custom Clearance/Cargo Handling		US\$500
	Trucking (Bishkek) @\$20/unit		US\$160
	Trucking (5 cities) @\$500 x 5days =		US\$2,500
	<u>Sub-Total</u>		<u>US\$3,160</u>
	Total		<u>US\$21,780</u>
		(L : US\$9,030)	
		(F : US\$12,750)	
		Tax : 24%	
(2)	Rearrangement of Office Space		
	@20 man-day/office x @\$5/man-day x6 office =		US\$600
	materials @\$1,000/office x 6 =		US\$6,000
	General O.H. + Tax + Profit =		US\$6,600
	<u>Total</u>		<u>US\$13,200</u>
	Tax : Labor costs	31.60%→	\$379
	Materials costs	21.97%→	\$2,636
	Total		<u>\$3,015 (22.8%)</u>

7. NBK Project Team Expenses

1. Organization

	<u>Phase-I</u>	<u>Phase-II</u>
a. Project Manager	1	0
b. Assistance P.M.	2	1
c. System Engineer	6	3
d. Operator	6	3
e. Clark	3	1
f. Secretary	2	1
Total	(20)	(9)

2. Direct Personnel Costs

	(US\$)		
	<u>Annual Salary</u>	<u>Phase-I</u>	<u>Phase-II</u>
a. Project Manager	3,000	3,000	-
b. Assistance P.M.	2,400	4,800	2,400
c. System Engineer	2,400	14,400	7,200
d. Operator	1,440	8,640	4,320
e. Clark	720	2,160	720
f. Secretary	600	1,200	600
Total		(34,200)	(15,240)

3. Personal Income Tax

	<u>Tax Rate</u>	<u>Phase-I</u>	<u>Phase-II</u>
a. Project Manager	39.912%	1,197	-
b. Assistance P.M.	28.890%	1,387	693
c. System Engineer	28.890%	4,160	2,080
d. Operator	21.98%	1,899	950
e. Clark	17.16%	371	124
f. Secretary	17.587%	211	106
Total		(9,225)	(3,953)

4. Economic Cost

	<u>Shadow Wage Rate</u>	<u>Phase-I</u>	<u>Phase-II</u>
a. Project Manager	1.0	1,803	-
b. Assistance P.M.	1.0	3,413	1,707
c. System Engineer	1.0	10,240	5,120
d. Operator	1.0	6,741	3,370
e. Clark	0.9	1,610	536
f. Secretary	0.7	692	346
Total		(24,499)	(11,079)

5. Personnel Costs

	<u>Phase-I</u>	<u>Phase-II</u>
District Labor Cost	\$34,200	\$15,240
Economic Cost	\$24,499	\$11,079
Transferable Cost	\$9,225 (26.97%)	\$3,953 (25.94%)
S.W. Adjustment Cost	\$476 (1.39%)	\$208 (1.36%)

6. General Overhead

(1) Total :	Phase-I :	\$34,200
	Phase-II :	\$15,240

(2) Composition

	<u>Composition</u>	<u>Tax(P-I)</u>	<u>Tax(P-II)</u>	<u>S.W.R.</u>
Payroll Tax	- 37.0%	37.0%	37.0%	1.00
Indirect Personnel Costs	(40%) 25.2%	*1 6.80%	6.54%	0.85
Material Costs	(30%) 18.9%	*2 3.78%	3.78%	1.00
Others	(30%) 18.9%	*3 3.78%	3.78%	1.00
Total	(100.0%)	(51.36%)	(51.10%)	

(Note)*1 : Refer 5. above, *2 : 20% (VAT), *3 : 20%

(3) General Overhead

Phase-I	
General Overhead :	\$34,200 (100.00%)
Economic Cost :	\$15,342 (44.86%)
Transferable Cost :	\$17,565 (51.36%)

S.W. Adjustment Cost : \$1,293 (3.78%)

Phase-II

General Overhead : \$15,240 (100.00%)

Economic Cost : \$6,876 (45.12%)

Transferable Cost : \$7,788 (51.10%)

S.W. Adjustment Cost : \$576 (3.78%)

7. Summary

Annual Cost	Phase-I			Phase-II		
	F	L	Total	F	L	Total
Personnel Cost	18,000	34,200	52,200	8,000	15,240	23,240
General Overhead	0	34,200	34,200	0	15,240	15,240
Other Costs	1,800	6,840	8,640	800	3,048	3,848
Total	19,800	75,240	95,040	8,800	33,528	42,328
Economic Cost	19,800	43,825	63,625	8,800	19,751	28,551
Transferable Cost	0	29,469	29,469	0	12,915	12,915
S.W. Adjustment (Total Period)	0	1,946 (35 months)	1,946	0	862 (24 months)	862
Economic Cost	58,333	127,823	186,156	17,600	39,502	57,102
Transferable Cost	0	85,951	85,951	0	25,830	25,830
S.W. Adjustment Cost	0	5,676	5,676	0	1,724	1,724
Total	58,333	219,450	277,783	17,600	67,056	84,656

8. Calculation of Personal Income Tax of Operating Staff

i. Appreciable Tax Rate

Income	Som/M	(US\$/Y)	Tax Rate (%)	Add'&Tax (Som)	(US\$/Y)
0 -	68	(81.60)	0	0	(0)
69 -	408	(489.60)	12	0	(0)
409 -	816	(979.60)	15	40	(40)
817 -	1,360	(1,632.20)	20	102	(102)
1,361 -	2,380	(2,856.00)	30	210	(210)
2,381 -		(2,856 over)	40	516	(516)

2. Tax Calculation

(1) Annual Income

	Annual Income (US\$)	(Som)
a. General Manager	3,000	30,000
b. System Engineer	2,400	24,000
c. Operator	1,440	14,400
d. Secretary	600	6,000

(2) Tax Calculation (in US\$)

a. General Manager

(3,000 - 2,856)	x 0.40	+ 516	=	577.20
(2,856 - 1,632)	x 0.30		=	367.20
(1,632 - 979.2)	x 0.20		=	130.56
(979.2 - 489.6)	x 0.15		=	73.44
(489.6 - 81.6)	x 0.12		=	48.96
Total				1,197.36 (39.912%)

b. System Engineer

(2,400 - 1,632)	x 0.30	+ 210	=	440.40
(1,632 - 979.2)	x 0.20		=	130.56
(979.2 - 489.6)	x 0.15		=	73.44
(489.6 - 81.6)	x 0.12		=	48.96
Total				963.36 (28.89%)

c. Operator

(1,440 - 979.2)	x 0.20	+ 102	=	194.16
(979.2 - 489.6)	x 0.15		=	73.44
(489.6 - 81.6)	x 0.12		=	48.96
Total				316.56 (21.98%)

d. Secretary

(600 - 489.6)	x 0.15	+ 40	=	56.56
(489.6 - 81.6)	x 0.12		=	48.96
Total				105.56 (17.587%)

3. Weighted Average Tax Amount

	Tax Amount (US\$)		
General Manager	@1,197.36 x	1 =	1,197.36
System Engineer	@693.36 x	11 =	7,626.96
Operator	@316.56 x	25 =	7,914.00
Secretary	@105.52 x	1 =	105.52
Total			16,843.84

Average Tax Rate = $16,843.84 \div 66,000 = 0.2552$ (25.52%)

9. General Overhead in Operation Stage

(1) Organization

1) General Manager	1
2) System Engineer	11
3) Operator	25
4) Secretary	1
Total	38

(2) Direct Labor Cost

	Annual Salary	Total	S.W.R.
1) General Manager	@\$3,000/Y	\$3,000	1.0
2) System Engineer	@\$2,400/Y	\$26,400	1.0
3) Operator	@\$1,440/Y	\$36,000	1.0
4) Secretary	@\$600/Y	\$600	0.7
Total		\$66,000	
	Tax(25.52%)	-\$16,843	
	S.W. Adjustment	-\$180	
	Economic Cost Total	\$48,977	(74.2%)

(2) General Overhead

	<u>Shares</u>	<u>Composition</u>	<u>Tax</u>	<u>S.W. Adj.</u>	<u>Economic Cost</u>
Payroll Tax	-	37%	-37%	-	
Personnel Cost	40%	25.2%	-7.56%	-2.52%	15.12%
Material Cost	30%	18.9%	-3.78%	-	15.12%
Others	30%	18.9%	-1.74%	-	17.16%
	100%	100%	50.08%	2.52%	47.40%

Economic Cost : 48.16%=\$31,284

(3) Other Expenses : 10%

(4) Economic Cost Total

	<u>Economic Cost</u>	<u>Transferable Cost</u>	<u>S.W. Adj.</u>	<u>Total</u>
Direct Labor Cost	\$48,977	\$16,843	\$180	\$66,000
General Overhead	\$31,284	\$33,053	\$1,663	\$66,000
Other Costs	\$8,076	\$4,990	\$134	\$13,200
Total	\$88,337	\$54,886	\$1,977	\$145,200

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