App.5.3-4 Construction Cost of Muruthawela Reservoir Scheme
- Kirama Oya Scheme - (15/18)

	cut	Doit	Quantity	Total (Cost (Rs)	Forein Cur	rency (Re)	Local Curi	ency (Re)
Construction W	orks		Quantity	Unit price	Amount	Unit price	Amount	Unit price	Amour
. Canal Works	type-BI	m		3,607	0	721	Ö	2,885	,
	type-BH	m		2,984	ŏ	597	Ö	2,388	•
	type-Bill	m	•	2,754	ŏ	551	Ŏ	2,203	
	type-BIV	m		2,413	Ö	483	Ö	1,931	
	type-BV	m		2,010	0	402	0	1,608	
	type-BVI	m		1,561	0	312	• 0	1,249	
	type-BVII	m	1,500	1,294	1,940,399	259	388,080	1,035	1,552,32
•	type-El	m		430	. 0	86	: 0	344	
	type-Ell	m		349	0	70	0	280	
	type-Elli	m		300	. 0	60	0	240	
	type-EIV	m		63	0	13	0	50	
Sub-total					1,940,399		388,080		1,552,32
. Anicul (Grade	C)								
2-1 Body		nos		1,407,754		281,551	0	1,126,203	
2-1 Gate		nos		280,000	0	56,000	0	224,000	
2-3 Revetment		nos		208,841	0	41,768	. 0	167,073	
2-4 Spill		nos		705,212	0	141,042	0	564,170	
Sub-tota					0		0		
Anicul (Grade	1: 50%	200	,	. 703 977	702 977	140 275	140.775	563,102	562 10
3-1 Body		nos	. 1	703,877 140,000	703,877 280,000	140,775 28,000	140,775 56,000	112,000	563,10 224,00
3-2 Gate 3-3 Revetment		nos	1	104,420	104,420	20,884	20,884	83,536	83,53
3-4 Spill		nos nos	1	352,606	104,420	70,521	20,004	282,085	03,33
Sub-tota		RUS		332,000	1,088,297	10,321	217,659	202,003	870,63
L Canal Structur		CY			1,000,051		211,000		
I Intake	type-li	nos		333,543	0	66,709	. 0	266,834	. 17
	type-lli	nos	1	127,233	127,233	25,447	25,447	101,787	101,78
-2 Turnout	type-It	nos	-	36,136	0	7,227	0	28,909	
	type-ilt	nos	2	24,036	48,072	4,807	9,614	19,229	38,45
l-3 Regulator	type-ir	nos		62,564	0	12,513	0	50,052	
	type-ilr	nos	1.	46,630	46,630	9,326	9,326	37,304	37,30
1-4 Drop	type-id	nos		80,731	0	16,146	0	64,585	
	type-lld	nos	1	33,170	33,170	6,634	6,634	26,536	26,53
1-5 Under Crossing	type-fu	nos		65,198	0	13,040	. 0	52,159	
	type-Ilu	nos	1	60,606	60,606	12,121	12,121	48,485	48,48
1-6 Spillway	type-Iw	nos	4 1 1	80,613	0		. 0	64,491	1.
	type-llw	nos	1.1	40,307	40,307	8,061	8,061	32,245	32,24
1-7 Over Bridge	type-lo	nos	4.4	206,648	0	41,330	0	165,318	
4 4 D. 1 D.D.	type-llo	nos	1	106,982	106,982	21,396	21,396	85,586	85,58
4-8 Parshall Flume	type-lp	nos		18,312	12 242	3,662	2.452	14,649	6.00
t the American	type-llp	nos	1	12,283	12,283	2,457	2,457	9,826	9,82
1-9 Aqueduct	type-la	nos		2,906,525	0	581,305 5,033	0	2,325,220	
Sub-tota	typė-Ila 1	nos		25,167	475.284	3,033	95,057	20,134	380.22
S. Canal Structur		RV-	• 100%		473,204		75,057		300,22
5-) Intake	type-li	nos	- 10070	333,543	0	66,709	Ü	266,834	4.5
	type-lli	nos	1	127,233	ŏ	25,447	ŏ	101,787	
5-2 Turnout	type-lt	nos	100	36,136	ŏ	7,227	ŏ	28,909	
	type-lit	nos	5	24,036	120,180	4,807	24,036	19,229	96,14
i-3 Regulator	type-ir	nos		62,564	0	12,513	0	50,052	,.
	type-llr	រាចទ	3	46,630	139,891	9,326	27,978	37,304	111,91
-4 Drop	type-Id	nos		80,731	0	16,146	0	64,585	
	type-IId	nos	2	33,170	66,341	6,634	13,268	26,536	53,0
5-5 Under Crossing	type-lu	nos		65,198	0	13,040	0	52,159	
	type-Hu	nos	2	60,606	121,211	12,121	24,242	48,485	96,96
5-6 Spillway	type-Iw	nos		80,613	0	16,123	0	64,491	
	type-Hw	nos	. 2	40,307	80,613	8,061	16,123	32,245	64,4
5-7 Over Bridge	type-lo	nos		206,648	. 0	41,330	0	165,318	
	type-Ho	nos	2	106,982	213,964	21,396	42,793	85,586	171,17
5-8 Parshall Flume	type-lp	nos		18,312	0	3,662	0	14,649	
	type-llp	nos		12,283	0	2,457	0	9,826	
	type-la	nos		2,906,525	0	581,305	0	2,325,220	ί,
5-9 Aqueduct									
	type-Ha	nos	1	25,167	25,167	5,033	5,033	20,134	20,13
5-9 Aqueduct Sub-tota	type-Ha		1						

App.5.3-4 Construction Cost of Muruthawela Reservoir Scheme
- Kirama Oya Scheme - (16/18)

-1 Wile Ankut		Unit	Quantity	Total C	ost (Rs)	Forein Curr	ency (Rs)	Local Curre	ency (Rs)
Construction Wo	rks	Cint	Quantity	Unit price		Unit price	Amount	Unit price	Amount
Canal Works									
	type-Bl	m		3,607	0	721	0	2,885	0
	type-BII	m		2,984	0	597	0	2,388	0
	type-BIII	m		2,754	0	551	0	2,203	0
•	type-BIV	m		2,413	0	483	0	1,931 1,608	ŏ
	type BV	m		2,010	0	402 312	0	1,303	0
:	type-BVI	m	1.000	1,561	2,457,839	259	491,568	1,035	1,966,271
	type-BVII		1,900	1,294	2,437,039	86	471,500	344	1,700,271
	type-El	m		430 349	ő	70	ő	280	Ö
	type-Ell	m		300	ő	.60	ŏ	240	ő
	type Elli	m m	•	63	ŏ	13	ŏ	50	Õ
Sub-total	type-EIV	111		0.5	2,457,839	15	491,568	:	1,966,271
Anicut (Grade	· · · · · · ·		. *	5. 1					
Anicut (Grade (-1 Body	٠,	nos		1,407,754	0	281,551	0	1,126,203	U
-1 Gate		nos		280,000	0	56,000	0	224,000	. 0
-3 Revetment		nos		208,841	0	41,768	0	167,073	Ū
-4 Spill		nos		705,212	Ó	141,042	O.	564,170	0
Sub-total	4			· , -	0	*	0		
Anicul (Grade	: 50%	-							
·I Body		nos	1	703,877	703,877	140,775	140,775	563,102	563,102
2 Gate		nos	2	140,000	280,000	28,000	56,000	112,000	224,000
3 Revetment		nos	3	104,420	104,420	20,884	20,884	83,536	83,536
4 Spill		nos		352,606	0	70,521	0	282,085	970.43
Sub-total					1,088,297		217,659		870,638
Canal Structur				200 5 12			Λ.	126.014	
l Intake	type-li	nos		333,543	107.022		25.447	266,834	
	type-lli	nos		127,233	127,233	25,447	25,447 0	101,787 28,909	101,783
2 Turnout	type-It	nos	_	36,136	0	7,227 4,807	4,807	19,229	19,22
	type-lit	nos		24,036	24,036 0		. 0	50.052	17,227
3 Regulator	type-Ir	nos	_	62,564 46,630	46,630		9,326	37,304	37,30
4 Dans	type-lir	nos		80,731	40,050),32ŏ	64,585	(
4 Drop	type-ld type-lld	nos nos	_	33,170	33,170		6,634	26,536	26,530
5 Under Crossing		nos		65,198	0		0	52,159	1
J Officer Crossing	type-liu	nos		60,606	60,606	12,121	12,121	48,485	48,48
6 Spillway	type-lw	nos	and the second second	80,613	0		0	64,491	
э оригниј	type-llw	nos	/ ·	40,307	40,307		8,061	32,245	32,24
7 Over Bridge	type-lo	nos		206,648	0		0	165,318	
	type-llo	nos	_	106,982	106,982	21,396	21,396	85,586	85,58
8 Parshall Flume	type-lp	nos		18,312	0	3,662	0	14,649	
	type-llp	nos	. }	12,283	12,283		2,457	9,826	9,82
9 Aqueduct	type-ia	nos	;	2,906,525	0	-581,305	. 0	2,325,220	1
	type-lia	nos	i	25,167	0		0	20,134	240.00
Sub-total					451,248		90,250		360,99
Canal Structur	es (Grade	B)	: 100%					244 024	
-l Intake	type-li	nos		333,543	:0		0	266,834	(
	type-Ili	nos		127,233	0		0	101,787	(
2 Turnout	type-It	nos		36,136	22 100		0 14,422	28,909	57,68
	type-lit	nos		24,036	72,108		14,422	19,229	37,00
3 Regulator	type-Ir	nos		62,564	03 261		18,652	37,304	74,60
4 Phone 1	type-llr	nos		46,630	93,261 0	9,326 16,146	18,032	64,585	14,00
4 Drop	type-Id	nos	_	80,731	33,170		6,634	26,536	26,53
E 11-3 O'	type-IId	nos		33,170 65,198	33,170		0,034	52,159	20,33
5 Under Crossing		nos	_	65,198 60,606	60,606		12,121	48,485	48,48
4 Callinar	type-IIu	nos		80,613	00,000		0	64,491	70,70
6 Spillway	type-Iw	nos		40,307	40,307		8,061	32,245	32,24
in Owar Bridge	type-llw	nos		206,648	40,507		0,001	165,318	02,2
7 Over Bridge	type-lo	nos		106,982	106,982	21,396	21,396	85,586	85,58
O Danel all Pione	type-llo	nos			100,962		21,570	14,649	00,00
8 Parshall Flume	type-lp	nos		18,312 12,283	0		ŏ	9,826	
O Aguadust	type-llp	009		2,906,525	Ö		ŏ	2,325,220	
9 Aqueduct	type-la type-lla	nos nos	_		75,501	5,033	15,100	20,134	60,40
Sub-tota		1103	, ,	20,107	481,935		96,387		385,54
				· · · · · · · · · · · · · · · · · · ·	,,,,,,,				_
300 (012							895,864		

App.5.3-4 Construction Cost of Muruthawela Reservoir Scheme
- Kirama Oya Scheme - (17/18)

		Unit	Quantity		ost (Rs)	Forein C	irrency (Rs)	Local Cur.	rency (Rs)
Construction W	orks			Unit price	Amount	Unit price	Amount	Unit price	Amour
I. Canal Works	Access DI			2.402			-		
	type-BI	m		3,607	0		0	2,885	(
	type-BH	m		2,984	0	597	0	2,388	9
	type-Bill	m		2,754	0	551	0	2,203	(
	type-BIV type-BV	m	•	2,413	0	483	0	1,931	
	type-BVI	m	2,200	2,010	2 422 614	402	0	1,608	2 844 00
	type-BVII	m m	2,200	1,561 1,294	3,433,614		686,723	1,249	2,746,89
	type-El	DJ		430	0	259	0	1,035	•
	type-Eil	UJ 111		430 349	0	86	0	344	1
	type-EIII	m		300	ő	70 60	0	280	•
	type-EIV	m		63	ŏ	13	0	240	(
Sub-tota				05	3,433,614	13	686,723	50	2 746 00
2. Anicut (Grade					3,433,014		000,723	· • · · · [2,746,89
2-1 Body	-	nos		1,407,754	. 8	281,551	. 0	1,126,203	
2-1 Gate		nos	5	280,000	1,400,000	56,000	280,000	224,000	1,120,000
2-3 Revetment		nos	•	208,841	0	41.768	0	167,073	1,120,000
2-4 Spill		nos		705,212		141,042	ŏ	564,170	
Sub-tota				,212	1,400,000	111,042	280,000	304,170	1,120,000
3. Anicut (Grade	1:50%				,,		200,000		1,120,000
3-1 Body	and the second second	nos		703,877	0	140,775	0	563,102	(
3-2 Gate		nos		140,000	ō	28,000	: ŏ	112,000	
3-3 Revetment		nos	1.	104,420	104,420		20.884	83,536	83,536
3-4 Spill	\$ 7	nos		352,606	0	70,521	0	282,085	(00,000
Sub-tota					104,420		20,884	,	83,530
4. Canal Structui)		· · · · · · · · · · · · · · · · · · ·			* * * * * * * * * * * * * * * * * * * *		
4-1 Intake		nos	1	333,543	333,543	66,709	66,709	266,834	266,834
10.70		nos	2	127,233	254,467	25,447	50,893	101,787	203,574
4-2 Turnout		nos		36,136	0	7,227	0	28,909	• (
4.4. Danislata		nos	3	24,036	72,108	4,807	14,422	19,229	57,687
4-3 Regulator		nos	•	62,564	0	12,513	0	50,052	0
4-4 Drop		nos	-2	46,630	93,261	9,326	18,652	37,304	74,609
4-4 Diop		nos		80,731	0	.16,146	. 0	64,585	C
4-5 Under Crossing	type-lid	nos	1	33,170	33,170	6,634	6,634	26,536	26,536
4-2 Onder Crossing		nos		65,198	0	13,040	0	52,159	, C
4-6 Spillway		nos		60,606	60,606	12,121	12,121	48,485	48,485
TO Opininaj		nos nos	1	80,613 40,307	0 40,307	16,123	0	64,491	40.04
4-7 Over Bridge		ก่อร	•	206,648	40,307 0	8,061	8,061	32,245	32,245
3111		nos	. 1	106,982	106,982	41,330 21,396	21,396	165,318 85,586	05.60
4-8 Parshall Flume	type-in	nos		18,312	100,562	3,662	21,390		85,586
		nos	. 2	12,283	24,566	2,457	4,913	14,649 9,826	19,653
4-9 Aqueduct		nos	_	2,906,525	21,500	581.305	7,510	2,325,220	12,033
		nos		25,167	ŏ	5,033	ŏ	20,134	ì
Sub-total	• •			,_,	1,019,010	2,002	203,802	20,134	815,208
5. Canal Structur	es (Grade B)	: 100%						015,200
5-1 Intake	type-li i	nos		333,543	0	66,709	. 0	266,834	
		nos.		127,233	• 0	25,447	Ŏ	101,787	Ò
5-2 Turnout		nos -		36,136	0	7,227	, 0	28,909	ò
	type-llt i	ROS	7	24,036	168,253	4,807	33,651	19,229	134,602
i-3 Regulator		nos -		62,564	0	12,513	0	50,052	(
4.5		nos	4	46,630	186,522	9,326	37,304	37,304	149,217
5-4 Drop		nos		80,731	0	16,146	0	64,585	Ċ
	type-IId i	nos	2	33,170	66,341	6,634	13,268	26,536	53,073
5-5 Under Crossing		nos	, _	65,198	0	13,040	0	52,159	C
. 4 C-:11.		nos	2	60,606	121,211	12,121	24,242	48,485	96,969
5-6 Spillway		os	_	80,613	0	16,123	0	64,491	0
		nos	2	40,307	80,613	8,061	16,123	32,245	64,491
5-7 Over Bridge		nos		206,648	0	41,330	0	165,318	0
CÒ DL.U.FR		ios	2	106,982	213,964	21,396	42,793	85,586	171,172
5-8 Parshall Flume		108		18,312	0.	3,662	.0	14,649	0
CO American		nos		12,283	0	2,457	0	9,826	0
5-9 Aqueduct		108		2,906,525		581,305	0	2,325,220	0
	type-IIa r	nos	4	25,167	100,668	5,033	20,134	20,134	80,535
Sub-total					937,573		187,515		750,058
Total					7,174,617		2,498,923		4,675,694

App.5.3-4 Construction Cost of Muruthawela Reservoir Scheme
- Kirama Oya Scheme - (18/18)

Kirama

	cut Unit	Quantity Total Co		rrency (Rs)	Local Curre	
Construction Wo	orks	Unit price	Amount Unit price	Amount	Unit price	Amou
Canal Works						
	type-Bf m	3,607	0 721	0	2,885	
	type-BH m	2,984	0 597	0	2,388	
	type-BHI m	2,754	0 551	0	2,203	
	type-BIV m	2,413	0 483	Û	1,931	
		2,010	0 402	Ŏ	1,608	
			0 312	ŏ	1,249	
	type-BVI m	1,561		-		
	type-BVII m	1,294	0 259	. 0	1,035	
	type-El m	430	0 86	0	344	÷
	type-Ell m	349	0 70	U	280	
	type-EIII m	-300	0 60	0	240	
•	type-EiV m	63	0 13	Ó	50	
Sub-total	type-234 m	03	ŏ	Ď		
	/ ny					
Anicut (Grade		1 402 264	0, 301 561	0	1,126,203	
-1 Body	nos	1,407,754	0 281,551			
-1 Gate	nos	280,000	0 56,000	0	224,000	
-3 Revetment	nos	208,841	0 41,768	0	167,073	
-4 Spill	nos	705,212	0 141,042	0	564,170	
Sub-total			0	0	-	
Anicut (Grade						
	nos	703,877	0 140,775	0	563,102	
-1 Body		140,000	0 28,000	ŏ	112,000	
-2 Gate	nos					
-3 Revetment	nos	104,420	0 20,884	0	83,536	
-4 Spill	nos	352,606	0 70,521	0	282,085	
Sub-total			0	0		
Canal Structur	es (Grade C)				± = . +	
1 Intake	type-li nos	333,543	0 66,709	0	266,834	
	type-lli nos	127,233	0 25,447	0	101,787	
2 Turnout		36,136	0 7,227	: 0	28,909	
2 Turnout	* *		0 4,807	ŏ	19,229	
	type-lit nos	24,036				
3 Regulator	type-Ir nos	62,564	0 12,513	0	50,052	
1	type-llr nos	46,630	0 9,326	· 0	37,304	
4 Drop	type-Id nos	80,731	0 16,146	. 0	64,585	
1•	type-lld nos	33,170	0 6,634	. 0	26,536	
5 Under Crossing	type-lu nos	65,198	0 13,040	D.	52,159	
5 Chaci Clossing	type-llu nos		0 12,121	0	48,485	1 44 3
		80,613	0 16,123	Ŭ	64,491	
6 Spillway	type-lw nos				32,245	
	type-liw nos		0 8,061	0		4 1
7 Over Bridge	type-lo nos		0 41,330	. 0	165,318	P.
	type-llo nos	106,982	0 21,396	. 0	85,586	1
8 Parshall Flume		18,312	0 3,662	(0	14,649	1
	type-llp nos		0 2,457	0	9,826	2
0 Aquaduct			0 581,305	Ö	2,325,220	i
9 Aqueduct			0 5,033	Ŭ	20,134	
01. 4.4.1	type-IIa nos	23,107	0 3,033	ŏ	20,10	
Sub-total		. 1000	<u> </u>			
Canal Structur		: 100%	0 (6700		266,834	
-1 Intake	type-li nos		0 66,709	0		
	type-IIi nos		0 25,447		101,787	
2 Turnout	type-It nos		0 7,227	0	28,909	
	type-llt nos		0 4,807	. 0	19,229	
3 Regulator	type-Ir nos	*****	0 12,513	• 0	50,052	5 - C
2 Negulator	type-IIr nos	44 400	0 9,326	• 0	37,304	1. 1. 3.
4 Dean			0 16,146	ŏ	64,585	
4 Drop	type-Id nos		0 6,634	ŏ	26,536	
	type-IId nos	44.400				
5 Under Crossing	type-lu nos		0 13,040	. 0	52,159	
	type-IIu nos		0 12,121	0	48,485	*
6 Spillway	type-Iw nos	80,613	0 16,123	0	64,491	
	type-llw nos	40.000	0 8,061	0	32,245	
7 Over Bridge	type-lo nos	201110	0 41,330	0	165,318	
A Over pringe		101000	0 21,396	ŏ	85,586	
والمستعدد والمقاض	type-lio nos	40.00		ŏ	14,649	
8 Parshall Flume	type-Ip nos	18,312	0 3,662			
	type-llp nos		0 2,457	. 0	9,826	
9 Aqueduct	type-la nos	2,906,525	0 581,305	• 0	2,325,220	
	type-IIa nos	06 1/7	0 5,033	: 0	20,134	
Sub-tota			0	0	-	
300-1014						
	**		0	0		

			Unit	Quantity	Total C	ost (Rs)	Forein Cu	rrency (Rs)	Local Curi	ency (Rs)
	Construction Wor	ks			Unit price	Amount	Unit price	Amount	Unit price	Amoun
•	Main Structure									
•	Intake Work									
-	Spillway Tota	al								
2	Main Canal		11 %		7.10	: · · · · · · · · · · · · · · · · · · ·				(D.)
	Construction Wor	ke	Unn	Quantity	Unit price	ost (Rs)	Unit price	rrency (Rs) Amount	Local Curr Unit price	ency (xs) Amoun
	Canal Works	N3			Om pice	Alloun	Onn parce	Attiount	Out piec	Alteon
•	Cuttor troins	type-BI	m		3,607	0	721	0	2,885	. (
		type-BII	m		2,984	0	597	0	2,388	(
		type-BIII	m		2,754	• 0	551	0	2,203	. (
		type-BIV	m	500	2,413	1,206,616	483	241,323	1,931	965,292
		type-BV	n)	200	2,010	402,066	402	80,413	1,608	321,653
	V .	type-BVI	m		1,561	0	312	0	1,249	
		type-BVII	m	900	1,294	1,164,240	259	232,848	1,035	931,39
	*	type-EI	·m		430	0	86	0	344	(
		type-EII	ກ	4,800	349	1,677,488	70	335,498	280	1,341,99
		type-EIII	ກ	.,	300	0	60	0	240	. (
	•	type-EIV	กา		63	ŏ	13	Ö	50	
	Sub-tot					4,450,410		890,082		3,560,32
	Canal Structures		;						· · · · · · · · · · · · · · · · · · ·	0,000,00
	Intake	type-li	nos		333,543	0	66,709	0	266,834	
•	I I I I I I I I I I I I I I I I I I I	type-Ili	nos		127,233	ő	25,447	ŏ	101,787	
.2	Turnout	type-It	поѕ		36,136	ŏ	7,227	Ď	28,909	(
~	1 onto at	type-Ilt	nos		24,036	ŏ	4,807	ŏ	19,229	
. 3	Regulator	type-Ir	nos		62,564	0	12,513	Ŏ	50,052	
- 5	regulator	type-IIr	nos		46,630	ő	9,326	. 0	37,304	
. 1	Drop				80,731	0	16,146	ő	64,585	
-4	Diop	type-Id	nos			. 0	6,634	0	26,536	1. 1. 1.
	Hadai Cesasina	type-lld	nos	4	33,170	0		0		
• 3	Under Crossing	type-lu	nos		65,198		13,040	1 . 5	52,159	
,	C.::11	type-Ilu	nos	_	60,606	102.066	12,121	0 < 12	48,485	222.46
-0	Spillway	type-Iw	nos	5	80,613	403,066	16,123	80,613	64,491	322,45
7	Ouas Peldas	type-liw	nos	1	40,307	0	8,061	0	32,245	
- /	Over Bridge	type-lo	nos		206,648	_	41,330	0	165,318	
	Danahall Elizas	type-llo	nos		106,982	0	21,396	0	85,586	(
• 5	Parshall Flume	type-Ip	nos	1 1 1	18,312	0	3,662	0	14,649	1
	Annadas	type-lip	nos		12,283	0	2,457	0	9,826	. •
•У	Aqueduct	type-la	nos		2,906,525	0	581,305	0	2,325,220	(
	0.1.4.4	type-IIa	nos		25,167	0	5,033	0	20,134	202.46
	Sub-tot					403,066		80,613		322,45
	Canal Structures			: 100%	. 222 542		((700	^	066 034	
-1	Intake	type-li	поѕ	į.	333,543	0	66,709	0	266,834	
	60	type-lli	nos	,	127,233	0	25,447	0	101,787	340.10
-2	Turnout	type-It	nos		36,136	325,226	7,227	65,045	28,909	260,18
		type-Ilt	nos	. 7	24,036	168,253	4,807	33,651	19,229	134,60
-3	Regulator	type-Ir	nos	5	62,564	312,822	12,513	62,564	50,052	250,25
4		type-IIr	nos	. '}	46,630	. 0		• 0	37,304	•
-4	Drop	type-id	nos		80,731	0	16,146	0	64,585	4
		type-IId	nos		33,170	0	6,634	0	26,536	
-5	Under Crossing	type-Iu	nos		65,198	0	13,040	0	52,159	
		type-Hu	nos		60,606	. 0	12,121	0	48,485	
-6	Spillway	type-lw	nos	l l	80,613	80,613	16,123	16,123	64,491	64,49
		type-llw	nos		40,307	. 0	8,061	0	32,245	+
-7	Over Bridge	type-lo	nos	6	206,648	1,239,885	41,330	247,977	165,318	991,90
	. : -	type-llo	nos		106,982	0	21,396	0	85,586	
-8	Parshall Flume	type-lp	nos		18,312	.0	3,662	0	14,649	<u>.</u>
		type-llp	nos		12,283	0	2,457	0	9,826	• •
-9	Aqueduct	type-la	nos		2,906,525	0	581,305	0	2,325,220	4
	•	type-lia	nos		25,167	Ó		Ō	20,134	(
	Sub-tot				,	2,126,799	,,,,,,	425,360		1,701,439
	Total					6.980,275		1.396.055	4, 1, 1	5.584.22

App.5.3-5 Construction Cost of Badagiriya Scheme (2/13)

	U	Init	Quantity	Total Co		Forein Curr	ency (KS)	Local Curre	• • •
Construction Wo	rks			Unit price	Amount	Unit price	Amount	Unit price	Amour
Canal Works					_			* 00*	
	type-BI	m		3,607	0	721	.0	2,885	
		m		2,984	0	597	. 0	2,388	. (
		m		2,754	0	551	0	2,203	•
		กา		2,413	0	483	0	1,931	1
		ni		2,010	0	402	0	1,608	
		m		1,561	. 0	312	0	1,249	
`		m	900	1,294	1,164,240	259	232,848	1,035	931,39
			700	430	0	86	0	344	
*	-7 E	m		349	ŏ	70	0	280	
	-71 -	m		300	ő	60	ŏ	240	
	- VI -	m			ő	13	Ŏ	50	
	71.	m		63		13		. 50	931,39
Sub-to					1,164,240		232,848		731,32
. Canal Structure					•	44 300		266 024	
-1 Intake	**	nos		333,543	0	66,709	0	266,834	
	type-lli t	nos		127,233	0	25,447	0	101,787	
2 Turnout		nos		36,136	0	7,227	0	28,909	
= - "-		nos		24,036	0	4,807	0	19,229	
3 Regulator	· · -	nos	-	62,564	0	12,513	0	50,052	
- 1108010101		nos	V	46,630	0	9,326	0	37,304	- 4
4 Drop		nos		80,731	0	16,146	0	64,585	
4 Diop		nos		33,170	0	6,634	0	26,536	
5 Under Crossing		nos		65,198	0		. 0	52,159	
Onder Crossing				60,606	Ŏ		Ba = 0	48,485	
c 0:10		nos		80,613	ŏ		0	64,491	
6 Spillway	₹ •	nos		40,307	ŏ		Ŏ	32,245	1 1
	76	nos			Ŏ		Ŏ	165,318	
-7 Over Bridge		nos		206,648	0		ŏ	85,586	
		nos	:	106,982	-		ŏ	14,649	
-8 Parshall Flume		nos		18,312	0		ŏ	9,826	
:	7 t	vos		12,283	0	•	0		4 - 4 -
-9 Aqueduct	71	nos		2,906,525	0	· · · · · · · · · · · · · · · · ·		2,325,220	. 1.
	type-lla	nos		25,167	0		0	20,134	14.44
Sub-to					0		. 0		
. Canal Structur	es (Grade B)		: 100%					066.004	
-1 Intake	type-li	nos	•	333,543	. 0	•	0	266,834	
		nos	-	127,233	0		0	101,787	
-2 Turnout		nos		36,136	. 0		0	28,909	
		nos		24,036	745,119		149,024	19,229	596,0
-3 Regulator		nos		62,564	0		0	50,052	
- informer		nos	_	46,630	139,891	9,326	27,978	37,304	111,9
4 Drop		nos		80,731			. 0	64,585	
אַטוע ד-י		nos		33,170	199,023		39,805	26,536	159,2
-5 Under Crossing		nos		65,198	0		. 0	52,159	
-5 Order Clossing				60,606	č		: 0	48,485	
. c.m		nos		80,613	Č		Ŏ	64,491	
-6 Spillway		nos			ò		ŏ	32,245	1 1 4
	type-llw	nos		40,307	: 6		ŏ	165,318	
1-7 Over Bridge	type-lo	nos		206,648			ŏ	85,586	
	type-Ilo	nos		106,982	(
3-8 Parshall Flume	type-Ip	nos	1	18,312	(0	14,649	
	type-llp	nos	;	12,283	. (0	9,826	
3-9 Aqueduct	type-Ia	nos		2,906,525	(- 0	2,325,220	
•	type-lla	nos	•	25,167		•	0	20,134	
Sub-t				•	1,084,033		216,807		867,2
	•								
					2,248,272		449,654		1,798,6

App.5.3-5 Construction Cost of Badagiriya Scheme (3/13)

B-4 FC 4 Canal Unit Quantity Total Cost (Rs) Forein Currency (Rs) Local Currency (Rs) Construction Works Unit price Amount Unit price Amount Unit price Amount Canal Works 3,607 721 2,885 type-BI m type-BII 2.984 0 597 0 2.388 m 0 type-BIII 2,754 0 2,203 551 0 m type-BIV O 483 2,413 O 1.931 0 m type-BV 1,608 2,010 0 402 0 0 m type-BVI 1,561 0 m 312 1.249 300 388,080 type-BVII 259 77,616 1,035 m 1,294 310,464 type-EI 430 0 86 344 0 type-Eil m 349 0 70 280 300 type-EIII 0 60 240 m O type-EIV 63 0 13 m 0 Sub-total 388,080 77,616 310,464 2. Canal Structures (Grade C) 2-1 Intake 333,543 0 66,709 266,834 type-li 0 127,233 101,787 type-lli nos 0 25,447 0 0 2-2 Turnout type-lt pos 36,136 0 7,227 0 28,909 0 type-IIt nos 24,036 0 4,807 0 19,229 0 2-3 Regulator type-Ir 62,564 0 12,513 0 50,052 O nos type-lir nos 46,630 9,326 0 37,304 0 2-4 Drop type-Id nos 80,731 0 16,146 0 64,585 0 type-IId 6,634 26,536 0 0 0 33,170 nos 2-5 Under Crossing type-lu 65,198 13,040 0 52,159 nos 60,606 0 12,121 0 0 type-llu nos 48,485 2-6 Spillway 80,613 type-Iw 16,123 0 64.491 nos 40,307 0 type-llw nos 0 8,061 32,245 0 2-7 Over Bridge typę-lo 206,648 0 41,330 0 0 nós 165,318 type-IIo 106,982 0 21,396 0 85,586 0 nos 2-8 Parshall Flume 18,312 0 0 0 type-lp 3,662 14,649 pos type-IIp 12,283 nos 2,457 9.826 0 type-la 2-9 Aqueduct 2,906,525 581,305 2,325,220 0 nos O 0 type-Ila nos 25,167 0 5,033 Ò 20,134 0 Sub-total 0 0 3. Canal Structures (Grade B) : 100% 3-1 Intake type-li 333,543 0 66,709 0 266,834 0 nos type-Ili 101,787 nos 127,233 Ð 25,447 0 0 28,909 3-2 Turnout 36,136 252,953 7,227 type-It nos 50,591 202,363 24,036 type-lit nos 0 4,807 0 19,229 0 3-3 Regulator type-Ir 62,564 12,513 50.052 nos 0 0 0 type-llr 46,630 9,326 0 37,304 nos type-Id 3-4 Drop 80,731 0 16,146 0 O nos 64,585 type-IId 33,170 0 nos 6,634 26,536 0 3-5 Under Crossing 65,198 0 13,040 0 type-Iu nos 52,159 0 type-Ilu 60,606 0 12,121 0 48,485 0 nos 3-6 Spillway type-Iw nos 80,613 0 16,123 0 64,491 0 type-IIw 40,307 0 0 8,061 0 nos 32,245 3-7 Over Bridge type-lo 206,648 41,330 0 165,318 0 nos 106,982 0 type-Ilo nos 0 21,396 85,586 0 type-Io 3-8 Parshall Flume nos 18,312 3,662 0 14,649 0 type-IIp nos 12,283 0 2,457 0 9,826 0 type-Ia 3-9 Aqueduct nos 2,906,525 581,305 0 2,325,220 Û type-lla 25,167 5,033 20,134 Sub-total 252,953 202,363 50,591

641,033

128,207

512,826

Total

App.5.3-5 Construction Cost of Badagiriya Scheme (4/13)

		Unit	Quantity	Total Cos	t (Rs)	Forein Curr	rency (Rs)	Local Cum	ency (Rs)
Construction World	(S =			Unit price	Amount	Unit price	Amount	Unit price	Amoun
Canal Works									
	type-BI	m		3,607	0	721	0	2,885	(
	type-BlI	m		2,984	0	- 597	0	2,388	(
	type-BIII	m		2,754	0	-551	0	2,203	(
	type-BIV	m		2,413	0	483	0	1,931	(
	type BV	m		2,010	. 0	402	. 0	1,608	(
	type-BVI	D)		1,561	Ó	312	. 0	1,249	(
	type BVII	m	600	1,294	776,160	259	155,232	1,035	620,92
			000	430	0	86	0	344	020,52
	type-El	ល		349	ŏ	70	Õ	280	
	type-Ell	B)		300	ő	60	: 0	240	
	type-EllI	m					· · · · · · · · · · · · · · · · · · ·	50	
	type-ElV	m		63	0	13	155 222	30	
Sub-tota					776,160		155,232	والمتعاورة والمست	620,92
Canal Structures				202 542				066.024	
-I Intake	type-li	nos	\$	333,543	0	66,709	0	266,834	
	type-Hi	nos	71	127,233	- 0	25,447	0	101,787	
-2 Turnout	type-It	nos	•	36,136	0	7,227	0	28,909	÷
(x,y) = (x,y) + (x,y	type-Ht	nos		24,036	0	4,807	0	19,229	-
3 Regulator	type-Ir	nos		62,564	0	12,513	0	50,052	
•	type-llr	nos		46,630	. 0	9,326	0	37,304	
-4 Drop	type-Id	nos		80,731	0	16,146	0	64,585	
	type-lld	nos	2	33,170	66,341	6,634	13,268	26,536	53,07
5 Under Crossing	type Iu	nos	· · · · · · · · ·	65,198	0	13,040	0	52,159	
5 01.001 0100011.6	type-llu	nos		60,606	0	12,121	. 0	48,485	
6 Spillway	type-Iw	nos		80,613	Õ	16,123	0	64,491	
О фрина	type-IIw	nos	1	40,307	40,307	8,061	8,061	32,245	32,24
-7 Over Bridge	type-Io		•	206,648	0,507	41,330	0,001	165,318	
-7 Otti Bitago		nos		106,982	ő	21,396	· · ŏ	85,586	
9 Darchall Eluma	type-llo	nos		18,312	. 0	3,662	ŏ	14,649	
-8 Parshall Flume	type-Ip	nos			0	2,457	0	9,826	
0.4	type-Hp	nos		12,283	0	• .	0	2,325,220	
-9 Aqueduct	type la	nos		2,906,525		581,305	ŏ	· · · · · · · · · · · · · · · · · · ·	
	type-lla	nos		25,167	106.647	5,033		20,134	0 € 21
Sub-tota			1000		106,647		21,329		85,31
. Canal Structures			: 100%	222 642		66 700	•	266 924	1.0
-1 Intake	type-li	nos		333,543	. 0	66,709	, 0	266,834	. 1
	type-lli	nos	_	127,233	0		0	101,787	07.00
-2 Turnout	type-It	nos	3	36,136	108,409	7,227	21,682	28,909	86,72
	type-llt	nos	3	24,036	72,108	4,807	14,422	19,229	57,68
-3 Regulator	type-Ir	nos		62,564	0	12,513	0	50,052	
	type-llr	- поѕ	2	46,630	93,261	9,326	18,652	37,304	74,60
-4 Drop	type-Id	nos		80,731	. 0	16,146	0	64,585	
	type-lld	nos	2	33,170	66,341	6,634	13,268	26,536	53,07
-5 Under Crossing	type-lu	nos		65,198	0	13,040	. 0	52,159	
	type-Ilu	nos		60,606	0	12,121	0	48,485	
-6 Spillway	type-Iw	nos		80,613	0		. 0	64,491	
- upinimy	type-IIw	nos		40,307	· 0	8,061	Ò	32,245	
-7 Over Bridge	type-lo	nos	4	206,648	· · · · · · ·	41,330	ŏ	165,318	t
-1 Over pringe					106,982	21,396	21,396	85,586	85,58
O Darahall Filing	type-Ifo	nos	_		100,552	3,662	21,590	14,649	55450
8 Parshall Flume	type-Ip	nos		18,312			Ξ.		
	type-lip	nos		12,283	0	2,457	0	9,826	
-9 Aqueduct	type Ia	nos		2,906,525	0		_	2,325,220	
	type-lla	nos		25,167	0	5,033	0	20,134	0.50
Sub-tota	al .				447,101		89,420		357,68
040 1011									

App.5.3-5 Construction Cost of Badagiriya Scheme (5/13)

		_	Onn	Quantity	Total Cos		Forein Curr	ency (Rs)	Local Curre	ncy (Ks)
	Construction Wor	ks			Unit price	Amount	Unit price	Amount	Unit price	Amour
•	Canal Works					_		_		
		type-BI	m		3,607	0	721	0	2,885	(
	•	type-Bll	m		2,984	0	597		2,388	
		type-Blil	m		2,754	0	551	. 0	2,203	
		type-BIV	m		2,413	0	483	. 0	1,931	
		type-BV	m		2,010	0	402	0	1,608	(
		type-BVI	m		1,561	0	312	0	1,249	
		type-BVII	m	300	1,294	388,080	259	77,616	1,035	310,46
		type-EI	m		430	0	86	. 0	344	
		type-EII	m		349	0	70	0	280	
		type-EllI	m		300	0	: 60	: 0	240	
		type-EIV	m		63	, 0	13	.0	50	
	Sub-tota				.,	388,080		77,616		310,46
•	Canal Structures					_				
-1	Intake	type-li	nos		333,543	0	66,709	0	266,834	
_	_	type-Ili	nos		127,233	. 0	25,447	0	101,787	
-2	Turnout	type-It	nos		36,136	0	7,227	0	28,909	
	_	type-llt	nos		24,036	0	4,807	0	19,229	
-3	Regulator	type-lr	nos		62,564	0	12,513	0	50,052	- '
		type-lir	nos		46,630	0	9,326	· · · · · · · · · · · · · · · · · · ·	37,304	
-4	Drop	type-Id	nos		80,731	0	16,146	0	64,585	
		type-IId	nos		33,170	0	6,634	0	26,536	
-5	Under Crossing	type-Iu	nos		65,198	0	13,040	0	52,159	
		type-llu	nos		60,606	0	12,121	0	48,485	
-6	Spillway	type-Iw	nos		80,613	0	16,123	0	64,491	
	•	type-llw	nos	- 1	40,307	40,307	8,061	8,061	32,245	32,24
-7	Over Bridge	type-Io	nos		206,648	·. 0	41,330	0	165,318	
		type-llo	nos		106,982	0	21,396	. 0	85,586	
-8	Parshall Flume	type-Ip	nos		18,312	0	3,662	0	14,649	1
		type-IIp	nos		12,283	0	2,457	0	9,826	
-9	Aqueduct	type-Ia	nos		2,906,525	0	581,305	0	2,325,220	
		type-lla	nos	1 1	25,167	0	5,033	0	20,134	1.1
	Sub-tot					40,307		8,061		32,24
	Canal Structures			: 100%						
-].	Intake	type-li	nos		333,543	0		0	266,834	
		type-lli	nos		127,233	0	25,447	0	101,787	
-2	Tumout	type-It	nos	2	36,136	72,272	7,227	14,454	28,909	57,81
_		type-lit	nos	2	24,036	48,072	4,807	9,614	19,229	38,45
-3	Regulator	type-Ir	nos		62,564	0	12,513	0	50,052	
_		type-llr	nos	1	46,630	46,630	9,326	9,326	37,304	37,30
-4	Drop	type-Id	nos		80,731	0	16,146	0	64,585	
		type-IId	nos	1	33,170	_		6,634	26,536	26,53
-5	Under Crossing	type-Iu	nos	4.	65,198	0	13,040	0	52,159	
		type-llu	nos	5 1	60,606	0		_	48,485	i
-0	Spillway	type-lw	nos		80,613	0	16,123	0	64,491	
	A . P.11	type-IIw	nos		40,307	0	8.061	0	32,245	
4	Over Bridge	type-lo	nos		206,648	0	41,330	0	165,318	00.00
^	B 11	type-llo	nos	1	106,982	106,982	21,396	21,396	85,586	85,58
-8	Parshall Flume	type-lp	nos		18,312	0	3,662		14,649	
		type-IIp	nos	:	12,283	0	2,457	0	9,826	
-9	Aqueduct	type-la	nos		2,906,525	0	581,305		2,325,220	
		type-ila	nos		25,167	0	5,033	0	20,134	
	Sub-tot	31				307,128		61,426		245,70

				m · -	(D)	Process of	(D.)	Land Co.	000 (D-1
		Unit	Quantity	Total Cost Unit price		Forein Curr	ency (Rs) Amount	Local Currel Unit price	ncy (Rs) Amount
Construction Wor	KS			Unit pace	Amount	Unit price	Ankan	Om pice	Anoun
1. Canal Works	tuna DI			3,607	0	721	0	2,885	. 0
	type-BI	m		2,984	0	597	ő	2,388	ŏ
	type-BII	m			0	551	ŏ	2,203	ŏ
	type-BIII	m		2,754	. 0	483	Ŏ	1,931	0
	type BIV	m		2,413			0	1,608	0
•	type-BV	m		2,010	0	402	0	1,249	0
· · · · · · · · · · · · · · · · · · ·	type-BVI	m	400	1,561	617.440	312		•	-
· · · · · · · · · · · · · · · · · · ·	type-BVII	กา	400	1,294	517,440	259	103,488	1,035	413,952
	type-El	m		430	0	86	. 0	344	. 0
	type-EII	ខា		349	0	70	, 0	280	0
	type-EIII	m		300	0	60	0	240	0
•	type EIV	กา		63	0	13	0	50	0.00
Sub-tot					517,440		103,488		413,952
2. Canal Structures	s (Grade C)				_				
2-1 Intake	type-li	nos		333,543	0	66,709	0	266,834	0
	type-lli	nos		127,233	0	25,447	0	101,787	C
2-2 Turnout	type-It	nos		36,136	0	7,227	0	28,909	
	type-Ht	nos		24,036	• 0	4,807	0	19,229	9
2-3 Regulator	type-ir	nos		62,564	0	12,513	0	50,052	
· ·	type-lir	nos		46,630	0	9,326	0	37,304	•
2-4 Drop	type-Id	nos		80,731	0	16,146	0	64,585	(
	type-IId	nos		33,170	: 0	6,634	0	26,536	•
2-5 Under Crossing	type-lu	nos		65,198	. 0	13,040	0	52,159	e' ee (
	type-llu	nos		60,606	. 0	12,121	0	48,485	•. (
2-6 Spillway	type-Iw	nos		80,613	0	16,123	0	64,491	(
o op	type-llw	nos	· 1	40,307	40,307	8,061	8,061	32,245	32,245
2-7 Over Bridge	type-lo	nos		206,648	0	41,330	0	165,318	(
# 1 0 tot 2 ge	type-llo	nos		106,982	0	21,396	. 0	85,586	. (
2-8 Parshall Flume	type-lp	nos		18,312	0	3,662	0	14,649	: (
20 I aronaci i i cini	type-llp	nos		12,283	0	2,457	0	9,826	(
2-9 Aqueduct	type-la	nos		2,906,525	0		0	2,325,220	
27 Macaser	type-lla	nos	100	25,167	0		0	20,134	ii (
Sub-tot			٠	7 7 7	40,307	•	8,061		32,243
3. Canal Structure			: 100%			· · · · · · · · · · · · · · · · · · ·		1 1 7	•
3-1 Intake	type-li	nos		333,543	0	66,709	0	266,834	(
J-1 Intake	type-lli	nos		127,233	0		0	101,787	: (
3-2 Turnout	type-It	nos		36,136	72,272	and the second second	14,454	28,909	57,818
J-2 10111001	type-llt	nos		24,036	48,072		9.614	19,229	38,458
3.3 Deculator	type-Ir	nos		62,564	0		0	50,052	· (
3-3 Regulator	type-llr	nos		46,630	46,630		9,326	37,304	37,30
3-4 Drop	type-Id	nos		80,731	0,050		0	64,585	()
2-4 D(O)	type-lid	nos		33,170	33,170		6,634	26,536	26,530
3-5 Under Crossing	type-nu type-lu	nos		65,198	0		0	52,159	(
3-3 Officer Crossing	type-llu			60,606	ŏ	_	0	48,485	(
2 Collins		nos		80,613	ŏ		0	64,491	
3-6 Spillway	type-Iw	nos		40,307	Ö		ŏ	32,245	
2.7 Ouse Paides	type-llw	nos		206,648	Ŏ		ŏ	165,318	
3-7 Over Bridge	type-lo	nos		106,982	106,982		21,396	85,586	85,586
2.0. D ball I'llians	type-lio	nos		18,312	100,982		21,570	14,649	ا
3-8 Parshall Flume	type-lp	nos			1	2,457	Ŏ	9,826	
	type-lip	nos		12,283	0		0	2,325,220	
3-9 Aqueduct	type-la	nos		2,906,525	0		0	20,134	
Sub-to	type-lla	nos	i	25,167	307,128		61,426	20,134	245,70
X1184 F/V	1241				507,120	•	4.,		,
300-10	•						•		

App.5.3-5 Construction Cost of Badagiriya Scheme (7/13)

B-8 DC 1 Canal (DC1, FC13, FC19, FC20)

		_	Unit	Quantity	Total C	ost (Rs)	Forein Co	inency (Rs)	Local Cur	rency (Rs)
	Construction Wor	rks			Unit price	Amount	Unit price	Amount	Unit price	Amou
ı.	Canal Works									
		type-BI	m		3,607	0	721	0	2,885	
		type-BII	nı		2,984	0	597	0	2,388	
		type-BHI	m		2,754	0	551	0	2,203	
		type-BIV	· ni		2,413	0	483	0	1,931	
		type-BV	m		2,010	0	402	0	1,608	
		type-BVI	m	800	1,561	1,248,587	312	249,717	1,249	998,87
		type-BVII	m	2,700	1,294	3,492,719	259	698,544	1,035	2,794,17
		type-EI	·m	•	430	0	86	0	344	-,,,,,,,
		type-Ell	m		349	0	70	Ö	280	
		type-EllI	m		300	0	60	Ö	240	
:		type-EIV	n)		63	0	13	ŏ	50	
	Sub-tot					4,741,306		948,261	30	3,793,04
	Canal Structures				• • • • • • • • • • • • • • • • • • • •	1,1 11,500		240,201		3,773,0
	Intake	type-li	nos		333,543	0	66,709	0	266,834	
•		type-lli	nos		127,233	0	25,447	0		
.2	Turnout	type-ii type-it	nos		36,136	0	7,227	0	101,787	
ے .	·	type-llt	nos	r	24,036	0	4,807	0	28,909	
. 3	Regulator								19,229	
	Regulator	type-Ir	nos		62,564	0	12,513	0	50,052	
4	Dron	type-lir	nos		46,630	0	9,326	0	37,304	i
-4	Drop	type-Id	nos		80,731	0	16,146	0	64,585	
	ilada Carata	type-lld	nos		33,170	0	6,634	0	26,536	
-,1	Under Crossing	type-lu	nos		65,198	0	13,040	0	52,159	
2	C=:U	type-llu	nos		60,606	0	12,121	0	48,485	
0	Spillway	type-lw	nos		80,613	0	16,123	0	64,491	
_	0 0 0	type-llw	nos	3	40,307	120,920	8,061	24,184	32,245	96,7
- 1	Over Bridge	type-Io	nos		206,648	0	41,330	0	165,318	
_		type-llo	nos	:	106,982	0	21,396	0	85,586	
-8	Parshall Flume	type-Ip	nos		18,312	0	3,662	0	14,649	
_	1.	type-llp	nos		12,283	0	2,457	0	9,826	1.00
9	Aqueduct	type-Ia	nos	1	2,906,525	0	581,305	0	2,325,220	1 1
		type-lla	nos		25,167	0	5.033	0	20,134	
	Sub-tot					120,920		24,184	4	96,7
		s (Grade B)		: 100%						
. 1	Intake	type-li	nos		333,543	0	66,709	. 0	266,834	
,		type-lli	nos	1	127,233	0	25,447	0	101,787	
2	Turnout	type-It	nos	11	36,136	397,498	7,227	79,500		317,9
	* .	i type-llt	nos	12	24,036	288,433	4,807	57,687	19,229	230,7
3	Regulator	type-Ir	nos	•	62,564	0	12,513	0	50,052	3.
		type-llr	nos	6	46,630	279,783	9,326	55,957	37,304	223,82
4	Drop	type-ld	nos		80,731	0	16,146	0	64,585	
		type-IId	nos	6	33,170	199,023	6,634	39,805	26,536	159,2
.5	Under Crossing	type-lu	nos		65,198	0	13,040	0	52,159	/,5
	J	type-Hu	nos		60,606	0	-	Ŏ	48,485	
6	Spillway	type-lw	nos		80,613	0	16,123	Ŏ	64,491	
		type-llw	nos	1	40,307	40,307	8,061	8,061	32,245	32,24
7	Over Bridge	type-lo	nos	•	206,648	0,307	41,330	0.001	165,318	32,2
		type-llo	nos	6		641,893	21,396	128,379	85,586	512 61
8	Parshall Flume	type-lp		J.	18,312			_	•	513,5
٠	a atomair I IUIIC	type-ip type-llp	nos			0	3,662	0	14,649	
o	Aqueduct		nos		12,283	0	2,457	0	9,826	
,	riqueduct	type-la	nos		2,906,525	0	581,305	. 0	2,325,220	
	O.A	type-Ila	nos		25,167	0	5,033	0	20,134	
	Sub-tota	11				1,846,936		369,387		1,477,54
	Total					6,709,162				

App.5.3-5 Construction Cost of Badagiriya Scheme (8/13)

		Unit	Quantity	Total Cos	t (Rs)	Forein Curr	rency (Rs)	Local Currer	ncy (Rs)
Construction Wor	ks			Unit price	Amount	Unit price	Amount	Unit price	Amour
. Canal Works							_		
	type-BI	m		3,607	0	721	0	2,885	1
•	type-BII	m		2,984	0	597	0	2,388	
	type-BIII	n		2,754	0	551	0	2,203	
	type-BIV	m		2,413	0	483	0	1,931	
	type-BV	m		2,010	0	402	0	1,608	
	type-BVI	m		1,561	0	312	0	1,249	
	type-BVII	ภา	400	1,294	517,440	259	103,488	1,035	413,95
	type-El	nı	100	430	0	: 86	O	344	•
				349	ŏ	70	0	280	
	type-EII	m		300	ŏ	60	Ŏ	240	
	type-Elll	nı 		63	0	13	Õ	50	
	type-EIV	m		63		13.	103,488	30	413,95
Sub-tot					517,440		103,400		- 410,50
2. Canal Structures				222 642	^	66 700	ń	266,834	
2-1 Intake	type-li	nos		333,543	0	66,709	0		
	type-Ili	nos		127,233	0	25,447	0	101,787	
2-2 Tumout	type-It	nos		36,136	0	7,227	0	28,909	
	type-IIt	nos		24,036	0	4,807	0	19,229	
2-3 Regulator	type-lr	nos		62,564	0	12,513	0	50,052	
-	type-Ilr	nos		46,630	0	9,326	0	37,304	
2-4 Drop	type-Id	nos		80,731	0	16,146	0	64,585	
•	type-IId	nos		33,170	0	6,634	: 0	26,536	
2-5 Under Crossing	type-Iu	nos		65,198	0	13,040	0	52,159	·
	type-llu	nos		60,606	0	12,121	0	48,485	
2-6 Spillway	type-Iw	nos	:	80,613	0	16,123	0	64,491	
o opiiinaj	type-IIw	nos	2	40,307	80,613	8,061	16,123	32,245	64,4
2-7 Over Bridge	type-lo	nos		206,648	. 0		0	165,318	
2-7 Otti Bilago	type-llo	nos		106,982	. 0		0	85,586	
2-8 Parshall Flume	type-lp	nos		18,312	. 0		0	14,649	:
2-0 Taishan Tuho	type-IIp	nos		12,283	. 0		0	9,826	1.
2-9 Aqueduct	type-la	nos		2,906,525	Ó	581,305	. 0	2,325,220	
2-9 Aqueauct		nos		25,167	Ŏ		0	20,134	. 7
Sub-tot	type-lla	ROS		23,107	80,613		16,123		64,4
and a regularity gar, therefore a			: 100%	Language 10 10 10 10 10 10 10 10 10 10 10 10 10	00,010	en e			
		200		333,543	0	66,709	0	266,834	4
3-1 Intake	type-li	nos		127,233	ŏ		ŏ	101,787	! -
	type-Ili	nos		36,136	72,272		14,454	28,909	57,8
3-2 Turnout	type-It	nos	•	24,036	72,108		14,422	19,229	57,6
2.2 D	type-llt	nos		62,564	72,100		0	50,052	
3-3 Regulator	type-Ir	nos			93,261		18,652	37,304	74,6
1.1	type-llr	nos		46,630	93,201		10,032	64,585	,.
3-4 Drop	type-Id	nos	•	80,731	_		13,268	26,536	53,0
	type-IId	nos		33,170	66,341				33,0
3-5 Under Crossing	type-Iu	nos		65,198	. 0		0	52,159	4
	type-llu	nos		60,606	0		0	48,485	
3-6 Spillway	type-Iw	nos	•	80,613	0		0	64,491	
	type-llw	nos		40,307	0		0	32,245	
3-7 Over Bridge	type-Io	nos		206,648	0		0	165,318	
	type-llo	nos	. 2	106,982	213,964		42,793	85,586	171,1
3-8 Parshall Flume	itype-Ip	nos		18,312	C	•	,0	14,649	
	type-llp	nos		12,283	, (. 0	9,826	
3-9 Aqueduct	type-la	nos		2,906,525		581,305	. 0	2,325,220	
o y riqueduce	type-IIa	nos		25,167	. (0	20,134	+ 2
Sub-to		-100		· · · · · · · · · · · · · · · · · · ·	517,947		103,589		414,3

App.5.3-5 Construction Cost of Badagiriya Scheme (9/13)

		Unit	Quantity	Total Cos	t (Rs)	Forein Curr	ency (Rs)	Local Curre	nev (Rs)
Construction Work	ks ·	Omi	Quantity	Unit price		Unit price	Amount	Unit price	Amoun
. Canal Works				Olin price	- I I I I I I I I I I I I I I I I I I I	Cint pines	747700111	ome price	
· Cana works	type-BI	m		3,607	0	721	0	2,885	(
	type-BII	m		2,984	ŏ	597	ŏ	2,388	. (
	type-Bill	m		2,754	ő	551	ŏ	2,203	ì
	type-BIV			2,413	ŏ	483	ő	1,931	. (
		m		2,413	. 0	402	ŏ	1,608	(
	type-BV	m			. 0	312	: 0	1,249	ò
	type-BVI	m	200	1,561		259		1,035	_
	type-BVII	m	300	1,294	388,080		'' 77,616		310,46
	type-El	`m		430	. 0	86	0	344	(
and the second	type-Ell	m		349	0	70	0	280	(
	type-EIII	ាកា		300	0	60	0	240	{
	type-EIV	na	*	63	0	: 13	0	50	210.46
Sub-tota					388,080		77,616		310,46
. Canal Structures									
-1 Intake	type-li	nos		333,543	. 0	66,709	0	266,834	(
	type-Ili	nos		127,233	0	25,447	0	101,787	(
2 Turnout	type-It	nos		36,136	0	7,227	0	28,909	
	type-Ht	nos		24,036	0	4,807	0	19,229	•
3 Regulator	type-Ir	nos		62,564	.0	12,513	: 0	50,052	!
	type-lir	nos		46,630	- 0	9,326	0	37,304	(
4 Drop	type-Id	nos		80,731	. 0	16,146	0	64,585	1
	type-IId	nos		33,170	0	6,634	0	26,536	
5 Under Crossing	type-lu	nos		65,198	0	13,040	• • 0	52,159	•
	type-Ilu	nos		60,606	0	12,121	0	48,485	
6 Spillway	type-Iw	nos	11	80,613	. 0	16,123	· • O	64,491	. (
	type-IIw	nos	1.	40,307	40,307	8,061	8,061	32,245	32,24
7 Over Bridge	type-lo	nos		206,648	0	41,330	0	165,318	,
	type-llo	nos		106,982	0	21,396	0	85,586	
8 Parshall Flume	type-lp	nos		18,312	0	3,662	0	14,649	
	type-llp	nos	. •	12,283	. 0	2,457	Ŏ	9,826	
9 Aqueduct	type-la	nos		2,906,525	Ŏ	581,305	Ŏ	2,325,220	
, riqueouti	type-lla	nos		25,167	ŏ	5,033	Ď	20,134	
Sub-tota			:		40,307	0,000	8,061	20,10	32,24
. Canal Structures		· · . · · · ·	: 100%					the star	
-1 Intake	type-li	nos	. 200 10	333,543	0	66,709	0	266,834	: . ! !
- Innunc	type-Ili	nos	: ÷	127,233	ŏ	25,447	ŏ	101,787	
2 Turnout	type-lt	nos	: 1	36,136	36,136	7,227	7,227	28,909	28,90
C 101RVG	type-lit	nos	1	24,036	24,036	4,807	4,807	19,229	19,22
3 Regulator	type-Ir	nos		62,564	24,030	12,513	0	50,052	17,22
- ACEDIAIOI	type-lir	nos		46,630	46,630	9,326	9,326	37,304	37,30
4 Drop	type-ld	nos	. •	80,731	40,050	16,146	0,520	64,585	31,50
4 Diop			- 1	33,170	33,170	6,634	6,634	26,536	26,53
5 Under Crossing	type-lld	nos	-				0,034		
5 Onder Clossing	type-lu	nos		65,198	. 0	13,040		52,159	
C 0-111	type-Ilu	nos		60,606	0	12,121	0	48,485	
6 Spittway	type-iw	nos		80,613	0	16,123	0	64,491	District Control
	type-llw	nos		40,307	0	8,061	0	32,245	:
7 Over Bridge	type-lo	nos	_	206,648	100,000	41,330	0 21 20 6	165,318	96.50
0 0 1 11 22	type-lio	nos		106,982	106,982		21,396	85,586	85,58
8 Parshall Flume	type-Ip	nos		18,312	0	3,662	0	14,649	
	type-llp	nos		12,283	0	2,457	. 0	9,826	
9 Aqueduct	type-Ia	nos		2,906,525	0	581,305	, 0	2,325,220	
	type-lla	nos		25,167	0	5,033	0	20,134	
Sub-tot	ai ·				246,955	÷	49,391	•	197,56

App. 5.3-5 Construction Cost of Badagiriya Scheme (10/13)

B-11 DC 3 Canal (DC2, FC35) Forein Currency (Rs) Local Currency (Rs) Total Cost (Rs) Unit Quantity Unit price Amount Construction Works Amount Unit price Amount Unit price Canal Works 1. 0 3,607 0 721 0 2,885 type-BI m 2,984 0 597 0 2,388 0 type-BII m 2,754 0 0 551 0 2,203 type-BIII 0 1,931 0 483 0 type-BIV 2,413 m 402 1,603 0 0 O type-BV 2,010 D) 124,859 1,249 499,435 400 1,561 624,294 312 type-BVI m 1,035 517,440 129,360 500 1,294 646,800 259 type-BVII m 86 344 430 n type-El m 280 n 0 70 0 349 type-EII m 0 240 0 0 60 type-EIII 300 m 0 0 13 type-EIV 63 m 1,016,875 254,219 1,271,093 Sub-total Canal Structures (Grade C) 0 266,834 333,543 0 66,709 nos 2-1 Intake type-Ii 101,787 0 0 127,233 0 25,447 type-Ili nos 7,227 0 28,909 0 0 type-It 2-2 Turnout 36,136 nos 0 24,036 0 4,807 0 19,229 type-lit nos 0 0 50,052 12,513 62,564 0 type-li 2-3 Regulator nos 0 37,304 0 0 9,326 46,630 type-Ilr nos 0 0 16,146 Ô 64,585 80,731 2-4 Drop type-ld nos 0 0 26,536 Ω type-lld 33,170 6.634 nos 0 13,040 0 52,159 0 65,198 2-5 Under Crossing type-Iu nos 0 0 48,485 type-IIu 60,606 0 12,121 DOS 0 64,491 0 16.123 0 80,613 type-Iw 2-6 Spillway nos 16,123 32,245 64,491 2 40,307 80,613 8,061 type-Ilw nos 165,318 0 41.330 0 206,648 Û type-lo 2-7 Over Bridge nos 0 21,396 Û 85,586 106,982 type-llo nos 0 14.649 0 3,662 O type-lo 18,312 2-8 Parshall Flume nos 0 0 2,457 0 9,826 12,283 type-lip nos 2,325,220 0 O 581,305 2,906,525 n type-la nos 2-9 Aqueduct 0 20,134 0 0 5,033 type-lla nos 25,167 64,491 80,613 16,123 Sub-total : 100% 3. Canal Structures (Grade B) 0 266,834 0 66,709 333,543 0 type-li nos 3-1 Intake 101,787 25,447 0 127,233 0 type-lli nos 86,727 7,227 21,682 28,909 108,409 36,136 nos 3-2 Turnout type-It 19,229 76,915 19,229 24,036 96,144 4,807 type-IIt nos 0 12,513 50,052 62,564 3-3 Regulator type-Ir nos 74,609 9,326 18,652 37,304 2 46,630 93,261 type-llr nos 64,585 type-Id 16,146 80,731 0 nos 3-4 Drop 53,073 33,170 66,341 6,634 13,268 26,536 2 type-IId nos 52,159 0 0 65,198 0 13,040 nos 3-5 Under Crossing type-lu 0 0 48,485 0 12,121 60,606 type-llu nos 0 0 64,491 0 16,123 80,613 3-6 Spillway type-Iw nos 32,245 0 0 0 8,061 type-Ilw 40,307 nos n 41,330 0 165,318 206,648 0 3-7 Over Bridge type-lo nos 42,793 85,586 171,172 213,964 21,396 106,982 type-llo nos n Û 14,649 0 3,662 18,312 3-8 Parshall Flume type-Ip nos 0 9,826 0 0 2,457 12,283 type-IIp nos 581,305 0 2,325,220 0 0 type-la 2,906,525 3-9 Aqueduct nos O 5,033 0 20,134 25,167 type-lla 462,495 578,119 115,624 Sub-total 1,543,860 1,929,826 385,965 Total

App.5.3-5 Construction Cost of Badagiriya Scheme (11/13)

D	1	1	Fſ	٠,	'n
- 61	- 5	Z	rı		у.

			Unit	Quantity	Total Co			rency (Rs)	Local Curr	ency (Rs)
<u>. </u>	Construction Wor	rks			Unit price	Amount	Unit price	Amount	Unit price	Amou
i.	Canal Works					_				
		type-BI	m		3,607	0	721	0	2,885	
		type-BH	· m		2,984	0	597	0	2,388	
		type-BIII	m		2,754	. 0	551	0	2,203	
		type-BIV	m		2,413	0	483	0	1,931	
		type-BV	m		2,010	0	402	0	1,608	
		type-BVI	m		1,561	: 0	312	. 0	1,249	
		type-BVII	m	600	1,294	776,160	259	155,232	1,035	620,9
		type-El	m		430	0	86	0	344	
		type-EII	m		349	. 0	70	. 0	280	
		type-EIII	n)		300	0	60	0	240	
		type-EIV	m		63	0	13	0	50	
	Sub-tot					776,160		155,232	50	620,9
2	Canal Structures			· · · · · · · · · · · · · · ·				. 100,202	::::::	010,2
	Intake	type-li	nos		333,543	0	66,709	0	266,834	
•		type-Ili	nos		127,233	ŏ	25,447	0	101,787	
2.2	Tumout	type-It	nos		36,136	0	7,227	ŏ		
	. omous	type-IIt	nos		24,036	0	4,807	0	28,909	
)_ 3	Regulator	type-In			62,564	0			19,229	
	regulator	type-Ilr	nos nos		46,630	0	12,513	0	50,052	
	Drop				80,731		9,326	0	37,304	
	Diop	type-Id	nos			0	16,146	. 0	64,585	:
	Hadar Cesasina	type-IId	nos		33,170	0	6,634	0	26,536	
, - J	Under Crossing	type-Iu	nos		65,198	0	13,040	0	52,159	
	C-311	type-llu	nos		60,606	0	12,121	0	48,485	
:-0	Spittway	type-Iw	nos	. *	80,613	• 0	16,123	. 0	64,491	
	0.50	type-llw	nos		40,307	0	8,061	0	32,245	
!- 1	Over Bridge	type-Io	nos		206,648	. 0	41,330	0	165,318	
		type-llo	nos		106,982	0	21,396	0	85,586	
2-8	Parshall Flume	type-Ip	nos		18,312	0	3,662	. 0	14,649	
	1	type-IIp	rios	10 mm	12,283	0	2,457	. 0	9,826	. :
2-9	Aqueduct	type-Ia	nos		2,906,525	0	581,305	0	2,325,220	1.
		type-IIa	nos		25,167	0	5,033	0	20,134	
	Sub-tot:					0		0		-
}	Canal Structures	s (Grade B)		: 100%						
3-1	Intake	type-li	nos	*	333,543	0	66,709	• 0	266,834	1
٠		type-lli	nos	1	127,233	0	25,447	0		
-2	Turnout	type-It	nos	. 3	36,136	36,136	7,227	7,227	28,909	28,9
		type-llt	nos	1	24,036	24,036	4,807	4,807	19,229	19,2
3-3	Regulator	type-Ir	nos		62,564	0	12,513	0	50,052	,
		type-IIr	nos		46,630	0	9.326	0	37,304	
-4	Drop	type-ld	nos		80,731	0	16,146	0	64,585	
	•	type-IId	nos	-11	33,170	364,875	6,634	72,975	26,536	291,9
3-5	Under Crossing	type-lu	nos		65,198	0	13,040	0	52,159	271,7
		type-IIu	nos		60,606	ŏ	12,121	0	48,485	
3-6	Spillway	type-lw	nos		80,613	Ŏ	16,123	ő	64,491	
- 7		type-llw	nos	:	40,307	ő	8,061	ő	32,245	
-7	Over Bridge	type-lo	nos	` :	206,648	ŏ	41,330	0	165,318	
		type-llo	nos		106,982	0	21,396	0	85,586	
.R	Parshall Flume	type-Ip	1		18,312	0		_	•	
	a description of the control of the		nos				3,662	0	14,649	
á	Aguaduct	type-lip	nos		12,283	. 0	2,457	0	9,826	
-7	Aqueduct	type-la	nos		2,906,525	0	581,305	0	2,325,220	
	م نائده	type-lla	nos		25,167	0	5,033	0	20,134	1
	Sub-tota	31				425,047		85,009		340,0
	Total					222		5.3		
	- 0191					1,201,207		240,241		- 960,90

App.5.3-5 Construction Cost of Badagiriya Scheme (12/13)

B-13 DC 4 (DC4, FC		Unit	Quantity	Total Co	est (Rs)	Forein Cur	rency (Rs)	Local Curr	ency (Rs)
Construction Wor	rks		,	Unit price		Unit price	Amount	Unit price	Amour
I. Canal Works									
	type-BI	m		3,607	0	721	: 0	2,885	(
	type-BII	m		2,984	0	597	. 0	2,388	
	type-BIII	m		2,754	0	551	0	2,203	
	type BIV	m		2,413	0	483	. 0	- 1,931	
	type BV	m		2,010	ŏ	402	ŏ	1,608	
	type BVI	m	500	1,561	780,367	312	156,073	1,249	624,29
	• •		1,100	1,294	1,422,960	259	284,592	1,035	
	type BVII	m	1,100		0	86	204,372	344	1,100,00
	type EI	IJ		430			<u> </u>	280	
	type-EII	m		349	. 0	70	0		
	type-EIII	m		300	0	.60	0	240	
	type-EIV	กา		63	0	13	0	50	1 262 66
Sub-tot					2,203,327		440,665		1,762,66
2. Canal Structure	s (Grade C)								•
2-1 Intake	type Ii	nos		333,543	0		0.	266,834	
	type-Ili	nos	4	127,233	0	25,447	0	101,787	
2-2 Turnout	type-It	nos		36,136	0	7,227	• 0	28,909	
		nos		24,036	0	4,807	0	19,229	
2-3 Regulator	type-fr	nos		62,564	0	12,513	0	50,052	
	type-IIr	nos		46,630	0	9,326	0	37,304	
2-4 Drop	type-Id	nos		80,731	0	16,146	. 0	64,585	
Б.ор	type-lld	nos	100	33,170	. 0	6,634	0	26,536	
2-5 Under Crossing	type-lu	nos		65,198	Ó	13,040	0	52,159	
-5 Office Crossing	type-liu	nos	•	60,606	· ŏ		0	48,485	
A Callingu	type-Iw			80,613	ŏ	16,123	0	64,491	
2-6 Spillway		nos	2	40,307	80,613	8,061	16,123	32,245	64,49
O G. Ower Deldon	type-llw	nos	_		00,013		0,123	165,318	V.,
2-7 Over Bridge	type lo	nos		206,648	: 0	21,396	0	85,586	:
	type-llo	nos		106,982	. 0		0	14,649	
2-8 Parshall Flume	type-Ip	nos		18,312			0	9,826	
	type-IIp	nos		12,283	0				. :
2-9 Aqueduct	type-la	nos		2,906,525	0		0	2,325,220	
	type-IIa	nos	:	25,167	0		0	20,134	
Sub-to					80,613		16,123		64,49
3. Canal Structure			: 100%		1 1 1 1 1 2	66.000		266.024	
3-1 Intake	i type-li	nos		333,543	0	66,709	0	266,834	
	type-lli	nos		127,233	0		0	101,787	2001
3-2 Turnout	type-It	nos		36,136	325,226		65,045		260,1
	type-Ilt	nos	10	24,036	240,361	4,807	48,072	19,229	192,2
3-3 Regulator	type-Ir	nos	1 :	62,564	0		0	50,052	
-	: type-llr	nos	3	46,630	139,891	9,326	27,978	37,304	111,9
3-4 Drop	type-Id	nos		80,731	0	16,146	0	64,585	
•	type IId	nos	4	33,170	132,682	6,634	26,536	26,536	· 106,1
3-5 Under Crossing	type-Iu	nos		65,198	0	13,040	. 0	52,159	
	type-Ilu	nos		60,606	0		0	48,485	
3-6 Spillway	type-lw	nos		80,613	. 0		. 0	64,491	
э о оринаў	type-llw	nos		40,307	40,307		8,061	32,245	32,2
2.7 Over Bridge	type-Io			206,648	0,550		0	165,318	
3-7 Over Bridge		nos	_ ·	106,982	320,947		64,189	85,586	256,7
10 D. L. 11 F	type-lio	nos			320,947		04,102	14,649	250,1
3-8 Parshall Flume	type-Ip	nos		18,312			0		;
	type-Ilp	nos		12,283	0	•	_	9,826	
3-9 Aqueduct	type Ia	nos		2,906,525		581,305	. 0	2,325,220	
	type Ila	nos		25,167	0	•	0 000	20,134	050.5
Sub-to	tal				1,199,413		239,883		959,5
Total	1 44 To 1	1.5			3,483,352	:	696,670		2,786,6

App.5.3.5 Construction Cost of Badagiriya Scheme (13/13)

B-14 Proposed Area (DC4, FC44, FC45, FC46, FC47, FC48, FC49)) Total Cost (Rs) Local Currency (Rs) Forein Currency (Rs) Unit Quantity Unit price Construction Works Unit price Unit price Amount Amount Amount Canal Works 3,607 2,885 0 o 721 type-BI nì type-BH 2,984 0 597 0 2,388 0 Bì type-BIII 0 551 0 2,203 0 2,754 m type-BIV 2.413 483 1.931 0 O m type BV 2,010 402 1,603 m o 1,249 O Ð 312 type-BVI 1,561 1,294 type-BVII 5,303,758 4,100 259 1,060,752 1,035 4,243,007 m 430 86 344 0 type-EI m 280 349 70 0 0 0 type-Ell m type-EIII 300 0 60 Ò 240 0 m type-EIV m 63 13 50 5,303,758 1,060,752 4,243,007 Sub-total Canal Structures (Grade C) 0 2-1 Intake 333,543 0 66,709 0 266,834 type-li nos 127,233 0 25,447 0 101,787 0 type-lli nos 2-2 Turnout 36,136 7,227 0 28,909 0 type It 0 nos 24,036 48,072 4,807 9,614 19,229 38,458 type-Ilt nos 2-3 Regulator type-Ir 62,564 0 12,513 0 50,052 0 DOS type-lir 46,630 0 9,326 0 37,304 0 nos 80,731 Û 16,146 0 64,585 O 2-4 Drop type-Id nos type-lld 33,170 6,634 26,536 nos 2-5 Under Crossing 65,198 0 13,040 0 Ω type-Iu 52,159 nos type-llu 60,606 0 12,121 48,485 Ò rios 2-6 Spillway type-Iw nos 80,613 0 16,123 0 64,491 0 type-llw 40,307 8,061 282,146 56,429 32.245 225,717 nos type-lo 2-7 Over Bridge 206,648 41,330 165,318 nos type-llo 106,982 0 21,396 0 85,586 0 nos type-Ip 0 2-8 Parshall Flume 18,312 0 3,662 0 14,649 nos 2,457 type-IIp 12,283 0 0 9,826 0 nos 2,325,220 2-9 Aqueduct type-Ia 2,906,525 0 581,305 0 0 nos type-lla 25,167 0 5,033 0 20,134 nos 330,218 66,044 264,175 Sub-total Canal Structures (Grade B) : 100% 333,543 0 66,709 0 266,834 3-1 Intake type-li nos type-Ili 127,233 101,787 0 25,447 0 nos 3-2 Turnout type-It 12 36,136 433,634 7,227 86,727 28,909 346,907 288,433 57,687 19,229 12 24,036 4,807 230,746 type-llt nos 3-3 Regulator type-Ir 62,564 12,513 50,052 nos 7 type-lir 46,630 326,413 9,326 65,283 37.304 261,131 nos 64,585 3-4 Drop type-Id 80,731 0 16,146 nos 232,193 46,439 26,536 185,754 type-IId 33,170 6,634 nos type-lu 3-5 Under Crossing 65,198 0 13.040 0 52,159 0 nos type-IIu 60,606 Û 12,121 0 48,485 0 nos type-Iw 3-6 Spillway 80.613 0 16,123 0 0 64.491 nos type-llw 40,307 8.061 32,245 nos 3-7 Over Bridge 206,648 0 41,330 0 0 type-Io nos 165,318 type-llo 106,982 748,876 21,396 149,775 85,586 599,100 nos 3-8 Parshall Flume type-ip 18,312 Ó 3,662 0 14,649 0 nos type-lip 12,283 2,457 9,826 0 nos 0 0 3-9 Aqueduct 2,906,525 581,305 2,325,220 type-la nos 5,033 type-lia nos 25,167 0 20,134 2,029,549 405,910 Sub-total 1,623,639 Land Conservation 86.2 19,055 1,642,512 3,811 328,502 15,244: 1,314,010 4-1 Clearing & Grubbing ha 4-2 ################ 492,754 98,551 394,203 1,741,063 427,053 1,314,010 Total 1,959,758 7,444,831

Benthara Ganga RB Scheme

App.5.3-6 Construction Cost of Benthara Ganga RB Scheme

Benthara Ganga RB Scheme -Alternative I-						į,		100
	Unit	Quantity	Total Cost (Rs	st (Rs)	Forein Currency (KS)	ency (KS)	Local Currency (AS	ency (KS)
Work Items		:	Unit price	Amount	Unit price	Amount	Unit price	Amount
(1) Replacement of SWE Structures	nos	14	3,753,311	52,546,357	750,662	10,509,271	3,002,649	42,037,086
(2) Resectioning of Drainage Canal		•						
type a	E	8.720	155	1,347,571	31	269.514	124	1.078,057
type b	E	4.020	390	1,565,902	78	313,180	312	1,252,722
TVDEC	E	4.530	534	2,420,264	107	484,053	427	1,936,211
sub-total(2)				5,333,737		1,066,747		4,266,990
(3) Provosion of Small Drainage Canals								; ;
type d	E	6,550	274	1,793,451	55	358,690	219	1,434,761
(4) Improvement of Bund	E	15,300	4,124	63,091,142	825	12,618,228	3,299	50,472,914
		. · ·		122,764.688		24,552,938		98,211,751
Donethan Conce DD Cohomo Altornofive I	1							
Dentificia d'anga 100 Soueme - Auch man	41	Ouantity	Total Cost (Rs	ost (Rs)	Forcin Currency (Rs)	rency (Rs)	Local Currency (Rs)	ency (Rs)
Work Items			Unit price	Amount	Unit price	Amount	Unit price	Amount
t of SWE Structures	Sou	14	3,753,311	52,546,357	750,662	10,509,271	3,002,649	42,037,086
type a	ឌ	8,720	155	1,347,571	31	269,514	124	1.078.057
type b		4,020	390	1,565,902	78.	313,180	312	1,252,722
chick	æ	4,530	534	2,420,264	107	484,053	427	1,936,211
sub-total(2)				5,333,737		1,066,747		4,266,990
(3) Provosion of Small Drainage Canals	S	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			.!	,	1	1
type d m	Ħ	4.870	274	1,333,452	55	266,690	219	1,066,761
	E	15,300	4,124	63,091,142	825	12,618,228	3,299	50,472,914
(5) Provision of Pump Stations	sou	S	000,000,66	495,000,000	19,800,000	000,000.66	79.200.000	396,000,000
	:			617 304 689		123 460.938	.:	493.843.751
Total				OK LACE TO				

App.5.3-7 Construction Cost of Polwatte Ganga Scheme

Amount 814,662 ,614,428 92,504,513 72,000,000 8,075,422 Local Currency (Rs) Unit price 65 614 72,000,000 203.665 403.607 18,000,000 Amount 23,126,128 Forein Currency (Rs) 16 153 18,000,000 Unit price 1,018,327 2,018,035 90,000,000 22,594,278 Amount 115,630,641 Total Cost (Rs) Unit price 90,000,000 8 Unit Quantity nos **E E** (type e) Total Resectioning and Dredging of Canal Improvement of Ilwatte Anicuts Provision of Embakment Construction of Anceuts Polwatte Ganga Scheme Work Items 3

Polwatte Ganga Scheme

App

App. 5.3-8 Construction Cost of Thangalu Welyaya Scheme

66,827,921	16,706,980		83,534,901			Total	Tota
15,200,000 15,200,000	3,800,000 13	3,800,000	19,000,000 3,800,000	19,000,000	, , , , , , , , , , , , , , , , , , , 	sou	(11) Provision of Pump Station
24,400,195	6,100,049		30,500,243			The state of the s	sub-total
5,145,462 5,145,462	• •	1,286,366	6,431,828	6,431,828	 -	Sou	Weejjetota anicut
		2,033,350	10,166,748	10,166,748	1	sou	Karijja SWE (S)
1,121,334 11,121,334	2,780,334 11	2,780,334	13,901,668	13,901,668	√	sou	(10) Replacement of Anicuts Karijja SWE (W)
4,955,388 9,910,776	2,477,694	1,238,847	12,388,470	6,194,235	7	sou	(9) New Groynes
275 244,802	61,200	69	306,002	4	830	k (type h) m	(8) Dredging & Resectioning of Kirama elt (type l
3,299 5,014,303	1,253,576	825	6,267,878	4,124	1,520	(type a) m	(7) Resectiong of Bunds
28,432 398,050	99,513	7,108	497,563	35,540	14	sou .	(6) Protection Works
275 662,890	165,723	69	828,613	% 4.	2,410	(type h) m	(5) Canal Enlargement
275 558,368	139,592	69	697,960	344	2,030	(type h) m	(4) Canal Excavation
123 1,190,470	297,617	31	1,488,087	153	9,700	(type g) m	(3) Provosion of Small Drainage Canals
266,834 4,536,181	1.134.045	66,709	5,670,227	333,543	17	Sou	(2) Construction of Culvert with Gates
547 4,711,885	1,177,971	137	5,889,857	684	8,610	(type f) m	(1) Provosion of Main Drainage Canals
Unit price Amount	Amount	Unit price	Amount	Unit price			Work Items
Local Currency (Rs)	ency (Rs)	Forein Currency (Rs)	st (Rs)	Total Cost (Rs)	Unit Quantity	Unit	
	-			•			Thangalu Welyaya Scheme

1 Brick Lining: Typ	se-pr (per me		Quantity	Total Co	ci (Re)	Forein Cure	mey (Pe)	BxH=5.0 Local Cume	
Work Items		Omi	Quashity					Unit price	•
. Excavation	Common	m3	0.00	74	0	15	O	60	Autoc
. Excavation . Excavation	Rock	m3	0.00	248	0	50	.0	198	
	NOCK	m3	9.69	60	584	12	117	48	4
Earthfilling	To affice		and the second second	17	- 19	3	4	14	*4*
. Slop Protection	Turffling	m2	1.13				-		
. Brick Mosonry Linii		m3	1.25	1,509	1,886	302	377	1,207	1,5
. Mass concrete	(1:4:8)	m3	0.12	2,115	254	423	51	1,692	2
. Reinforcement	4.0	kg	0.00	44	0	9	0	35	
. Shuttering	3 uses	m2	0.60	210	126	42	- 25	168	1
. Wearing Road way	Gravel	m3	0.90	151	136	30	27	121	. 1
	sub-total			11	3,005	•	601		2,4
Miscel Work (20%))				601		120		4
- <u></u> -	Total				3,607		721		2,8
-2 Brick Lining : Ty	io.RH (nor m	alar)						BxH=4.	คง1 (
· Z Direk Lanning : xy	se-Dir (per m		Quantity	Total Co	st (Rs)	Forein Cure	ency (Rs)	Local Curre	
Work Items			•	Unit price	Amount			Unit price	
. Excavation	Common	n13	0.00	74	0	15	0	60	
. Excavation	Rock	m3	0.00	248	. 0		0	198	
. Earthfilling	Roth	m3	3.59	60	216	12	43	48	1
. Slop Protection	Turfffing	m2	1.13	17	19	3	4	14	
. Brick Mosonry Lini		m3	1.15	1,509	1,735		347	1,207	1,3
. Mass concrete	(1:4:8)	m3	0.12	2,115	254	423	51	1,692	2
. Reinforcement	(1.4.0)		0.00	44	254	9	0	35	
	2 11505	kg m2	0.60	210	126	:42	25	168	. 1
Shuttering	3 uses	m3	0.90	151	136	30	27	121	1
. Wearing Road way	Gravel	1113	0.90	. 131		30	497	121	-
N (N (000)	sub-total				2,487				1,9
Miscel Work (20%)			•		497		99		3
	Total		·		2,984		597		2,3
-3 Brick Lining : Ty	pe-BIII (per n	neter)		,		1	BxH=3.	
		Unit	Quantity	Total Co				Local Cum	
Work Items			<u> </u>					Unit price	Amo
. Excavation	Common	. m3.	0.00	74	0	15	0	60	1
. Excavation	Rock	m3	0.00	248	0	50	0	198	
Earthfilling		. m3	4.16		251	12	50	48	1
. Slop Protection	Turfffing	m2	1.13	17	19	3	4	- 14	
 Brick Mosonry Lini 	ng	m3	1.00	1 1	1,509		302	1,207	1,2
. Mass concrete	(1:4:8)	m3	0.12	2,115	254	423	51	1,692	2
. Reinforcement	- •	kg	0.00	. 44	0	9	0	35	
3. Shuttering	3 uses	m 2	0.60	210	126		25	168	
. Shuttering	Gravel	'm3	0.90	151	136		27	121	- 1
. Wearing Road way	~,				2,295		459		1,8
	sub-total				L, L /				
). Wearing Road way	sub-total				459				3
	sub-total)				459		92		
). Wearing Road way	sub-total							:	2,

B-4 Brick Lining : Typ	e-BIV (per	meter))				1	BxH=2.	0x1.3m
		Unit	Quantity	Total Co	si (Rs)	Forein Curr	ency (Rs)	Local Curre	ncy (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	0.00	74	0	15	0	60	0
2. Excavation	Rock	m3	0.00	248	0	50	0	198	0
3. Earthfilling		m3	7.04	60	424	12	85	48	339
4. Slop Protection	Turfffing	m2	0.85	17	15	3	3	14	. 12
5. Brick Mosonry Lini	ng	m3	0.70	1,509	1,056	302	211	1,207	845
6. Mass concrete	(1:4:8)	m3	0.12	2,115	254	423	- 51	1,692	203
7. Reinforcement		kg	0.00	44	0		0	35	0
8. Shuttering	3 uses	m2	0.60	210	126	42	25	168	101
9. Wearing Road way	Gravel	m3	0.90	151	136	30	27	121	109
•	sub-tota	1			2,011		402	i i	1,609
Miscel Work (20%))				402		80		322
	Total			, i .	2,413		483	· · · · · · · · · · · · · · · · · · ·	1,931

App.5.4-1 Cost Breakdown of Canal Works (2/3)

B-5 Brick Lining : Typ	se-BV (per n	ieter)					. ,	BxH=1.	0x1.5m
			Quantity	Total Co	st (Rs)	Forein Curr	ency (Rs)	Local Curo	ency (Rs)
Work Items				Unit price	Amount	Unit price	Amount		Amount
1. Excavation	Common	m3	0.00	74	0	15	. 0	60	0
2. Excavation	Rock	m3	0.00	248	0	50	0	198	0
3. Earthfilling		m3	2.72	60	164	12	33	48	131
4. Slop Protection	Turfffing	m2	0.85	. 17	- 15	3	3	. 14	12
5. Brick Mosonry Lini	•	m3	0.65	1,509	981	302	196	1,207	785
6. Mass concrete	(1:4:8)	m3	0.12	2,115	254	423	51	1,692	203
7. Reinforcement	(kg	0.00	44	0	9	. 0	35	0
8. Shuttering	3 uses	m2	0.60	210	126	42	-25	168	101
9. Wearing Road way	Gravel	m3	0.90	151	136	30	27	121	109
J. Welling House way	sub-tota	1			1,675		335		1,340
Miscel Work (20%		•			335		67		268
•	Total				2,010		402		1,608

B-6 Brick Lining : Ty	pe-BVI (per n	ieter)					BxH=0.	8x1.2m
	<u></u>		Quantity	Total Co	st (Rs)	Forein Curr	ency (Rs)	Local Curre	ency (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	0.00	74	: 0	15.	. 0	60	0
2. Excavation	Rock	m3	0.00	248	0	50	Ō	198	0
3. Earthfilling		m3	0.68	60	41	12	8	48	33
4. Slop Protection	Turfffing	m2	- 1.13	17	19	3.	4	14	15
5. Brick Mosonry Lini	~	m3	0.48	1,509	724	302	145	1,207	579
6. Mass concrete	(1:4:8)	m3	0.12		254	423	51	1,692	203
7. Reinforcement	(11,110)	kg	0.00	44	0	9	0	35	0
8. Shuttering	3 uses	nı2	0.60	210	126	42	25	168	101
9. Wearing Road way		m3	0.90	151	136	30	27	121	109
3. Wearing Rolls will	sub-total	2110	-		1,301		260		1,040
Miscel Work (20%					260		52		208
MISCO HOIK (20%	Total				1,561		312		1,249

B-7 Brick Lining : Typ	e-BVII (pe	r meter	r)			1 .	()	BxH=0.	6x1.2m
	. :		Quantity					Local Curre	
Work Items						Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	0.00	74	. 0	15	[0	60	0
2. Excavation	Rock	m3′	0.00	248	: 0	50	0	198	0
3. Earthfilling		m3	0.30	60	18	12	4	48	14
4. Slop Protection	Turfffing	m2	0.04	17	1	3	0	. 14	l
5. Brick Mosonry Linit		m3	0.36	1,509	543	302	109	1,207	435
6. Mass concrete	(1:4:8)	m3	0.12	2.115	254	423	51	1,692	203
7. Reinforcement	(** **=2	kg	0.00	44	. 0	9	. 0	35	0
8. Shuttering	3 uses	m2	0.60	210	126	42	25	168	101
9. Wearing Road way	Gravel	m3	0.90	151	136	30	27	121	109
7. Wearing Road way	sub-tot				1,078		- 216		862
Miscel Work (20%)					216		1 43	1.15	. 172
Mister Holk (2070)	Total .	:			1,294		259	<u> </u>	1,035

E-1 Earth Lining: Typ	e-EI (per n	icter))	, ,		1.		BxH=5.	.0x2.2m
		Unit	Quantity	Total Co	st (Rs)	Forein Cun	ency (Rs)	Local Curre	ency (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	0.00	74	0	15	0	60	0
2. Excavation	Rock	m3	0.00	248	0	50	0	198	-0
3. Earthfilling		m3	3.21	60	193	12	39	48	155
4. Slop Protection	Turfffing	m2	1.70	17	29	3	6	14	23
5. Brick Mosonry Linin	ig Ü	m3	0.00		0	302	0	1,207	0
6. Mass concrete	(1:4:8)	m3	0.00	2,115	0	423	. 0	1,692	0
7. Reinforcement		kg	0.00	44	0	9	. 0	35	0
8. Shuttering	3 uses	m2	0.00	210	. 0	42	0	168	0
9. Wearing Road way	Gravel	m3	0.90	151	136	30	27	121	109
,	sub-total				359		72		287
Miscel Work (20%	6)				72		14		57
•	Total				430		86		344

E-2 Earth Lining: Typ	e-EII (per i	metei	r)			1000		BxH=3	0x2.0m
		Unit	Quantity	Total Co	st (Rs)	Forein Curr	ency (Rs)	Local Curr	ency (Rs)
Work Items		:		Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	0.00	74	0	15	0	60	0
2. Excavation	Rock	m3	0.00	248	. 0	50	. 0	198	0
3. Barthfilling	•	m3	2.09	60	126	12	25	48	101
4. Slop Protection	Turfffing	m2	1.70	17	29	- 3	6	14	23
5. Brick Mosonry Linin		m3	0.00		0	302	0	1.207	0
6. Mass concrete	(1:4:8)	m3	0.00	2,115	0	423	0	1,692	0
7. Reinforcement		kg	0.00	44	0	9	0	35	· ō
8. Shuttering	3 uses	m2	0.00	210	0	42	0	168	0
9. Wearing Road way	Gravel	m3	0.90	151	136	30	27	121	109
	sub-total		100		291		58	, , ,	233
Miscel Work (20%	·)				- 58		12		47
	Total				349		70		280

E-3 Earth Lining: Typ	e-EIII (per	mete	r)	. (.				BxH=1.	5x1.4m
		Unit	Quantity	Total Co	st (Rs)	Forein Curr	ency (Rs)	Local Curre	ncy (Rs)
Work Items		<u> </u>		Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	0.00	74	0	15	0	60	0
2. Excavation	Rock	: m3	0.00	248	0	50	0	198	0
3. Earthfilling		m3	1.49	60	90	12	18	48	72
4. Slop Protection	Turfffing	m2	1.41	17	24	3	5	14	19
5. Brick Mosonry Lining	2	m3	0.00		0	302	0	1.207	0
6. Mass concrete	(1:4:8)	m3	0.00	2,115	0	423	0	1.692	0
7. Reinforcement		kg	0.00	44	0	9	0	35	0
8. Shuttering	3 uses	m2	0.00	210	0	42	0	168	Ô
9. Wearing Road way	Gravel	m3	0.90	151	136	30	- 27	121	109
	sub-total				250		50	, _ •	200
Miscel Work (20%)				50		10		40
	Total				300		60		240

E-4 Earth Lining : Typ	e-EIV (per	mete	r)	1				BxH=0	.8x0.7m
	1 7 1	Unit	Quantity	Total Co	si (Rs)	Forein Curr	ency (Rs)	Local Curr	ency (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	0.00	74	0	15	0	60	0
2. Excavation	Rock	m3	0.00	248	0	50	0	198	. 0
3. Earthfilling	*	m3	0.71	60	43	12	9	48	34
4. Slop Protection	Turfffing	m2	0.57	17	10	3	2	14	8
5. Brick Mosonry Linin	ig	m3	0.00	1,509	0	302	0	1.207	0
6. Mass concrete	Ŭ(1:4:8)	m3	0.00	2,115	0	423	0	1,692	0
7. Reinforcement	, ,	kg	0.00	44	0	9	0	35	0
8. Shuttering	3 uses	mŽ	0.00	210	0	42	0	168	Õ
9. Wearing Road way	Gravel	m3	0.00	151	0	30	0	121	ő
	sub-total				53		11		42
Miscel Work (20%	·)				11		2		8
	Total			· · · · · · · · · · · · · · · · · · ·	63		13		50
				C 041					

		Type-li (per	
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		Unit	Quantity	Total Co	st (Rs)	Forein Curre	ncy (Rs)	Local Curren	cy (Rs)
Work Items				Unit price	Amoust	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	148.6	74	11,064	14.9	2,213	59.6	8,852
2. Earthfilling		m3	50.7	60	3,055	12.1	611	43.2	2,444
3. Slop protection	Turfffing	m2	0.0	17	0	3.4	0	13.7	0
 4. Reinforced concrete 	(1:2:4)	m3	26,3	2,709	71,247	541.8	14,249	2,167.2	56,998
5. Mass concrete	(1:4:8)	m3	40.3	2,115	85,225	423.0	17,045	1,691.8	68,180
6. Reinforcement		kg	263.0	44	11,668	8. 9	2,334	35.5	9,335
7. Shuttering	3 uses	ກາ2	256.4	210	53,836	42.0	10,767	168.0	43,069
8. Gate for turnout		nos	0.0	0	0		0		0
9. Wooden gate for reg	4'x4'	nos	2.0	510	1,020	102.0	204	408.0	816
10. RCC Pipe laying		ถอร	0.0	0	0		0		0
11. Rubble Masonry		m3	12.8	1,520	19.456	304.0	3.891	1,216.0	15,564
	sub-total				256,571		51,314		205,257
Miscel Work (30%)					76,971		15,394		61,577
	Total				333,543		66,709		266.834

S-2 Intake : Type-Ili (per number)

		Unit	Quantity	Total Co	st (Rs)	Forein Curre	ncy (Rs)	Local Curren	cy (Rs)
Work Items				Unit price	- Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	71.9	74	5,354	14.9	1,071	59.6	4,283
2. Earthfilling		m3	37.4	60	2,254	12.1	451	48.2	1,803
3. Slop protection	Turiffing	nı2	0.0	17	. 0	3.4	0	13.7	0
 4. Reinforced concrete 	(1:2:4)	m3	8.0	2,709	21,672	541.8	4,334	2,167.2	17,338
5. Mass concrete	(1:4:8)	m3	13.2	2,115	27,915	423.0	5,583	1,691.8	22,332
6. Reinforcement .		kg	204.0	44	9,051	8.9	1.810	35.5	7,241
7. Shuttering	3 uses	m2	81.6	210	17,133	42.0	3,427	168.0	13,707
8. Gate for turnout		nos	0.0	0 -	0	1	0		0
9. Wooden gate for reg	4 x4	nos	1.0	510	510	102.0	102	408.0	408
10. RCC Pipe laying		nos	0.0	0	0		. 0		0
11. Rubble Masonry		m3	9.2	1,520	13,984	304,0	2,797	1,216.0	11,187
	sub-total				97,872	4	19,574		78,298
Miscel Work (30%)					29,362	:	5,872		23,489
	Total		-		127,233		25,447	1.0	101,787

S-3 Turnout: Type-It (per number)

The second secon	Unit	Quantity	Total C	ost (Rs)	Forein Curr	ency (Rs)	Local Curre	ncy (Rs)
Work Items	2.34		Unit price	Amount	 Unit price 	Amount	Unit price	Amount
1. Excavation Commor	n 13	7.7	74	572	14.9	114	59,6	457
2. Earthfilling	ាា3	6.2	60	376	12.1	75	48.2	301
3. Slop protection Turfffing	m2	0.0	17	0	3.4	0	13.7	0
4. Reinforced concrete (1:2:4)	m3	1.9	2,709	5,174	541.8	1.035	2,167.2	4,139
5. Mass concrete (1:4:8)	m3	0.0	2,115	0	423.0	0	1,691.8	0
6. Reinforcement	kg	19.1	44	847	8.9	169	35.5	678
7. Shuttering 3 uses	m2	7.6	210	1,604	42.0	321	168.0	1,283
8. Gate for turnout D=18"	nos	1.0	11,195	11,195	2,239.0	2.239	8,956.2	8,956
9. Wooden gate for regulator	nos	0.0	700	0	140.0	0	560.0	0
10. RCC Pipe laying D=18"	m	6.5	1,178	7,654	235.5	1,531	942.1	6,123
11. Rubble Masonry	m3	1.8	1,520	2,690	304,0	538	1,216.0	2,152
sub-tota	•		•	30,113		6.023	-	24,091
Miscel Work (20%)				6,023		1,205		4,818
Total	į.		April 1990	36,136		7,227		28,909

S-4 Turnout: Type-lit (per number)

		Unit	Quantity	Total C	ost (Rs)	Forein Curre	ncy (Rs)	Local Curren	cy (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	7.7	74	572	14.9	114	59.6	457
2. Earthfilling	31	m3	6.2	60	376	12.1	75	48.2	301
3. Slop protection	Turfiling	m2	0.0	17	0	3,4	. 0	13.7	0
4. Reinforced concrete	(1:2:4)	m3	1.8	2,709	4,795	541.8	959	2,167.2	3,836
5. Mass concrete	(1:4:8)	m3	0.0	2,115	0	423,0	0	1,691.8	0
6. Reinforcement		kg	16.6	44	736	8.9	147	35.5	589
7. Shuttering	3 uses	ពា2	6.6	210	1,394	42.0	279	168.0	1,115
8. Gate for turnout	D=9"	nos	1.0	4,280	4,280	855.9	856	3,423.6	3,424
9. Wooden gate for reg	gulator	nos	0.0	700	0	140.0	0	560.0	0
10. RCC Pipe laying	D=9"	m	6.5	561	3,646	112.2	729	448.7	2,917
11. Rubble Masonry		m3	1.8	1,520	2,690	304.0	538	1,216.0	2,152
	sub-total				18,489		3,698	-	14,791
Miscel Work (30%)					5,547		1,102		4.437
	Total :		2.0		24,036		4,807		19,229

S.	5	Reg	ulato	r :	Type	-Ir (oer	number)	

		Unit	Quantity	Total Cos	1 (Rs)	Forein Curre	ocy (Rs)	Lécal Currenc	y (Rs)
Work Hems				Unit price	Amount	Unit price	Amount	Unit price	Amount
I. Excavation	Common	กา3	10.8	74	806	14.9	161	59,6	645
2. Earthfilling		m3	5.8	60	352	12.1	70	48.2	. 282
Slop protection	Turffling	m2	0.0	17	0	3.4	O	13.7	0
4. Reinforced concrete	(1:2:4)	m3	10.3	2,709	27,794	541.8	5,559	2,167,2	22,236
Mass concrete	(1:4:8)	m3	0.0	2,115	0	423.0	0	1,691.8	0
6. Reinforcement		kg	102.6	44	4,552	8.9	910	35.5	3,642
7. Shuttering	3 uses	m2	41.0	210	8,617	42.0	1,723	168.0	6,894
8. Gate for turnout		nos	0.0	11,195	0	2,239.0	0	8,956.2	0
9. Wooden gate for re-	2 4.5'x4.5'	nos	2.0	700	1,400	140.0	280	560.0	1,120
10. RCC Pipe laying	_	m	0.0	1,178	0	235.5	. 0	942.1	0
11. Rubble Masonry		m3	3.0	1,520	4,606	304.0	921	1.216.0	3,684
•	sub-total			-	48,127		9.625	-3	38,501
Miscel Work (30%))				14,438		2.888	1	11,550
	Total				62,564		12,513		50,052

S-6 Regulator : Type-IIr (per number)

		Unit	Quantity	Total Cos	t (Rs)	Forein Curre	ocy (Rs)	Local Current	y (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	7.1	74	526	14.9	105	59.6	421
2. Earthfilling		m3	3.5	60	209 -	12.1	42	48.2	167
3. Slop protection	Turffling	m 2	0.0	17	0	3.4	0	13.7	0
4. Reinforced concrete	(1:2:4)	m3	7.7	2,709	20,724	541.8	4,145	2,167.2	16,579
5. Mass concrete	(1:4:8)	m3	0.0	2,115	0	423.0	0	1,691.8	0
6. Reinforcement		kg	76.5	44	3,394	8,9	679	35.5	2,715
7. Shuttering	3 uses	m2	30.6	210	6,425	42.0	1,285	168.0	5,140
8. Gate for turnout		nos	0.0	11,195	0	2,239.0	0	8.956.2	. 0
9. Wooden gate for reg	4.5'x4.5'	nos	1.0	700	700	140.0	140	560.0	560
10. RCC Pipe laying	٠.	m	0.0	1,178	0	235.5	0	942.1	0
11. Rubble Masonry		m3	2.6	1,520	3,891	304.0	778	1,216.0	3,113
	sub-total		1		35,870		7,174	•	28,696
Miscel Work (30%)					10,761		2,152		8,609
	Total				46,630		9,326		37,304

S-7 Drop : Type-Id (per number)

	1	Unit	Quantity	Total Cos	(Rs)	Forein Curre	ncy (Rs)	Local Curre	ncy (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3.	61.9	74	4,610	14.9	922	59.6	3,688
2. Earthfilling		m3	3.4	60	205	12.1	41	48.2	164
3. Slop protection	Turfffing	m2	0.0	17	• 0	3.4	0	13.7	0
4. Reinforced concrete	(1:2:4)	m3	13.8	2,709	37,384	541.8	7,477	2,167.2	29,907
5. Mass concrete	(1:4:8)	m3 :	0.0	2,115	0	423,0	0	1,691.8	0
6. Reinforcement	i i	kg	138.0	44	6,123	8.9	1,225	35.5	4,898
7. Shuttering	3 uses	mŽ	55,2	210	11,590	42.0	2,318	168.0	9,272
8. Gate for turnout	D=18"	nos	0.0	11,195	0	2,239.0	0	8,956.2	0
9. Wooden gate for reg	ulator	nos	0.0	700	0	140.0	0	560.0	0
10. RCC Pipe laying	D=18"	m	0.0	1,178	0	235.5	0	942.1	. 0
11. Rubble Masonry		m3 ¹	1.4	1.520	2,189	304.0	438	1,216,0	1,751
	sub-total			· .	62,101		12,420		49,681
Miscel Work (30%)	*		."		18,630		3.726		14,904
	Total				80,731		16,146		64,585

S-8 Drop: Type-Ild (per number)

		Unit	Quantity	Total Co	1 (Rs)	Forein Curre	ncy (Rs)	Local Curren	cy (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	กา3	28.3	74	2,108	14.9	422	59.6	1,686
2. Earthfilling		m3	3.0	60	178	12.1	36	48.2	143
3. Slop protection	Turfffing	m2	0,0	17	0	3.4	. 0	13.7	0
4. Reinforced concrete	(1:2:4)	m3	5.3	2,709	14,276	541.8	2,855	2,167.2	11,421
5. Mass concrete	(1:4:8)	m3	0.0	2,115	. 0	423.0	O	1.691.8	0
6. Reinforcement	• *	kg	52.7	44	2,338	8.9	468	35.5	1,870
7. Shuttering	3 uses	m2	21.1	210	4,426	42.0	885	168.0	3,541
8. Gate for turnout	D=18"	DOS	0.0	11,195	0 -	2,239.0	. 0	8,956.2	0
9. Wooden gate for reg	ulator	nos	0.0	700	0	140.0	0	560.0	. 0
10. RCC Pipe laying	D=18"	m	0.0	1,178	0	235.5	0	942.1	0
11. Rubble Masonry		m3	1.4	1,520	2,189	304.0	438	1.216.0	1,751
•	suo-total				25,516		5,103	.,	20,413
Miscel Work (30%)					7,655		1,531		6.124
` ,	Total				33,170		6,634		26,536

S-9 Under Crossing: Ty		Unit	Quantity	Total Cos	(Rs)	Forein Curre	ncy (Rs)	Local Curreno	y (Rs)
Work Items			1: 1	Unit price	Amount	Unit price	Amount	Unit price	Amount
	Common	m3	7.6	74	569	14.9	114	59.6	455
2. Earthfilling		m3	2.5	60	149	12.1	30	48.2	119
	Turfffing	m2	0.0	17	0	3.4	0	13.7	0
4. Reinforced concrete (m3	8.4	2,709	22,756	541.8	4,551	2,167.2	18,205
	(1:4:8)	m3	0.0	2,115	0	423.0	0	1,691.8	0
6. Reinforcement	(***)	kg	84.0	44	3,727	8.9	745	35.5	2,981
	3 uses	m2	33.6	210	7,055	42.0	1,411	168.0	5,644
8. Gate for turnout		nos	0.0	0	0		0		. 0
9. Wooden gate for regu	ilator	nos	0.0	310	: 0	62.0	0	248.0	0
	D=18"	nos	13.5	1.178	15,897	235.5	3,179	942.1	12,718
11. Rubble Masonry		m3	0.0	1,520	0	304.0	0	1,216.0	- 0
11. Record Masons	sub-total	*****	***	.,	50,153		10,031		40,122
Miscel Work (30%)	700 tota.	-			15,046		3,009		12,037
	Total				65,198		13,040		52,159

S-10 Under Crossing:		Unit	Quantity	Total Cos	(Rs)	Forein Curre	ncy (Rs)	Local Curren	cy (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
	Common	m3	7.6	74	569	14.9	114	59.6	455
2. Earthfilling		m3	2.5	60	149	12.1	30	48.2	119
3. Slop protection	Turffling	m2	0.0	17	0	3.4	0	13.7	. 0
4. Reinforced concrete		m3	8.4	2,709	22,756	541.8	4,551	2,167.2	18,205
5. Mass concrete	(1:4:8)	m3	0.0	2,115	0	423.0	0	1,691.8	. 0
6. Reinforcement	(kg	84.0	44	3,727	8.9	745	35.5	2,981
7. Shuttering	3 uses	m2	33.6	210	7,055	42.0	1,411	168.0	5,644
8. Gate for turnout	2 4300	nos	0.0	0	0	:	. 0		. 0
9. Wooden gate for reg	ulator	nos	0.0	310	0	62.0	Ò	248.0	O
10. RCC Pipe laying	D=18"	กดร	10.5	: 1,178	12,365	235.5	2,473	942.1	9,892
11. Rubble Masonry	D-10	m3	0.0	1,520	0	304.0	0	1,216.0	0
11. Knoole masomy	sub-total		0.0	1,525	46.620		9,324		37,296
Miscel Work (30%)	-				13,986		2,797		11,189
Miseci noir (20%)	Total				60,606	- *	12,121		48,485

S-11 Spillway: Type-Iw (per non	Unit	Quantity	Total C	Cost (Rs)	Forein Curre	ncy (Rs)	Local Curren	y (Rs)
Work Items	-		Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation Common	m3	15.0	74	1,117	14.9	223	59.6	893
2. Earthfilling	ຄາ3	0.0	60	0	12.1	0,	48.2	
3. Slop protection Turfffing	m2	0.0	17	0	3.4	. 0	13.7	.0
4. Reinforced concrete (1:2:4)	m3	14.3	2,709	38,739	541.8	7,748	2,167.2	30,991
5. Mass concrete (1:4:8)	m3	0.0	2,115	0	423.0	0	1,691.8	0
6. Reinforcement	kg	143.0	44	6,344	8.9	1,269	35.5	5,075
7. Shuttering 3 uses	m2	57.2	210	12,010	42.0	2,402	168.0	9,608
8. Gate for turnout D=18"	nos	0.0	11,195	0	2,239.0	0	8,956.2	0
9. Wooden gate for regulator	nos	0.0	700	0	140.0	. 0	560.0	0
10. RCC Pipe laying D=18"	m	0.0	1,178	0	235.5	. 0	942.1	0
11. Rubble Masonry	m3	2.5	1,520	3,800	304.0	760	1,216.0	3,040
sub-total				62,010		12,402		49,608
Miscel Work (30%)				18,603		3,721	*	14 882
Total				80,613		16,123	4.0	64,491

S-12 Spillway: Type-ll		Unit	Quantity	Total Cos	l (8s)	Forein Curre	ncy (Rs)	Local Correne	cy (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	7.5	74	558	14.9	112	59.6	447
2. Earthfilling	***************************************	m3	0.0	60	0	12.1	0	48.2	0
3. Slop protection	Turfffing	m2	0,0	17	0	3,4	0	13.7	· 0
4. Reinforced concrete		m3	7.2	2,709	19,369	541.8	3,874	2,167.2	15,496
5. Mass concrete	(1:4.8)	m3	0.0	2,115	0	423,0	0	1,691.8	. 0
6. Reinforcement	(1.1.0)	kg	71.5	44	3,172	8.9	634	35.5	2,538
7. Shuttering	3 uses	m2	28.6	210	6,005	42.0	1,201	168.0	4,804
8. Gate for turnout	D=18"	nos	0.0	11,195	0	2,239.0	. 0	8,956.2	0
9. Wooden gate for reg		nos	0.0	700	Ō	140.0	0	560.0	. 0
10. RCC Pipe laying	D=18 ⁿ	LD)	0.0	1,178	ō	235.5	0	942.1	0
11. Rubble Masonry	D-10	m3	1.3	1,520	1.900	304.0	380	1,216.0	1,520
11. Rubble Mastery	sub-total	1113	1.3	1,520	31,005	•••	6.201		24,804
					9,302		1,860		7,441
Miscel Work (30%)	Total				40,307		8.061		32,245

App.5.4-2 Cost Breakdown of Canal Structures (4/8)

S-13) Over	Bridge	e : Ty j	pe-lo (p	er number)

		Unit	Quantity	Total Co	st (Rs)	Forein Curre	ncy (Rs)	Local Curren	cy (Rs)
Work Items	1.1			Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	97.2	74	7,237	14.9	1,447	59.6	5,789
2. Earthfilling		m3	90.7	60	5,466	12.1	1,093	48,2	4,373
3. Slop protection	Turfffing	m2	0.0	17	0	3.4	0	13.7	0
 Reinforced concrete 	(1:2:4)	m3	28.4	2,709	76,909	541.8	15,382	2,167.2	61,527
Mass concrete	(1:4:8)	n13	0.0	2,115	0	423.0	0	1,691.8	0
6. Reinforcement		kg	567.8	44	25,191	8.9	5,038	35.5	20,153
7. Shuttering	3 uses	m2	113.6	210	23,844	42.0	4,769	168.0	19.075
8. Gate for turnout		nos	0.0	11,195	. 0	2,239.0	0	8,956.2	0
9. Handrail		m	13.8	1,472	20,314	294.4	4,063	1,177,6	16,251
10. RCC Pipe laying		ะก	0,0	1,178	0	235.5	0	942.1	0
11. Rubble Masonry		m3	0.0	1,520	. 0	304.0	. 0	1,216.0	ő
	sub-total				158,960		31.792	,,	127,168
Miscel Work (30%)					47,688		9,538		38,150
, · · ·	Total				206,648		41,330		165.318

S-14 Over Bridge: Type-Ho (per number)

	· · · · ·		,						and the second second
		Unit	Quantity	Total (Tost (Rs)	Forein Curre	ncy (Rs)	Local Curren	cy (Rs)
Work Items	:			Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	44.0	74	3,276	14.9	655	59.6	2,621
2. Earthfilling		m3	34.9	60	2,102	12.1	420	48.2	1,682
3. Slop protection	Turfffing	m2	0.0	17	0	3.4	0	13.7	0
 Reinforced concrete 	(1:2:4)	m3	14.8	2,709	39,958	541.8	7,992	2.167.2	31,966
5. Mass concrete	(1:4:8)	m3	0.0	2,115	0	423.0	0	1.691.8	0
6. Reinforcement		kg	295.0	44	13,088	8.9	2,618	35.5	10.470
7. Shuttering	3 uses	m2	59.0	210	12,388	42,0	2,478	168.0	9,910
8. Gate for turnout		nos	0,0	11,195	0	2,239.0	0	8.956.2	0
9. Handrail		m	7.8	1,472	11.482	294.4	2,296	1.177.6	9.185
10. RCC Pipe laying	:	m	0.0	1,178	0	235.5	0	942.1	0
11. Rubble Masonry	* •	m3	0.0	1,520	0	304.0	0	1.216.0	ň
· · · · · · · · · · · · · · · · · · ·	sub-total				82.294		16,459	1,222.0	65,835
Miscel Work (30%))				24.688		4.938		19,751
	Total				106,982		21,396		85.586

S-15 Parshall Flume : Type-Ip (per number)

		Unit	Quantity	Total C	ost (Rs)	Forein Curre	ncy (Rs)	Local Currence	y (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	22.5	74	1,675	14.9	335	59.6	1,340
2. Earthfilling	. 1	m3	10.5	60	633	12.1	127	48.2	506
	Turfiffing	m2	0.0	. 17	0	3.4	0	13.7	0
4. Reinforced concrete	(1:2:4)	m3	3.0	2,709	7,992	541.8	1,598	2.167.2	6,393
5. Mass concrete	(1:4:8)	m3	0.0	2,115	0	423.0	0	1.691.8	0
6. Reinforcement		kg	29.5	44	1,309	8.9	262	35.5	1,047
7. Shuttering	3 uses	m2	11.8	210	2,478	42.0	496	168.0	1,982
8. Gate for turnout	D=18"	nos	0.0	11,195	0	2,239.0	0	8.956.2	0
9. Wooden gate for regi	ulator	nos	0.0	700	0	140.0	Ó	560.0	ő
10. RCC Pipe laying	D=18"	m	0.0	1,178	0	235.5	0	942.1	·ŏ
11. Rubble Masonry		m3	0.0	1,520	0 .	304.0	Ō	1.216.0	ŏ
	sub-total			•	14,086		2.817	.,	11.269
Miscel Work (30%)				*	4.226		845		3,381
<u>-</u>	Total	· ·			18,312		3,662		14,649

S-16 Parshall Flume: Type-Ilp (per number)

		Upit	Quantity	Total Co	ost (Rs)	Forein Curre	ncy (Rs)	Local Current	y (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	10.0	74	745	14.9	149	59.6	596
2. Earthfilling		ะกา3	6.0	60	362	12.1	72	48.2	289
3. Slop protection	Turfffing	m2	0,0	17	. 0	3,4	Ó	13.7	: 0
4. Reinforced concrete	(1:2:4)	m3	2.1	2,709	5,689	541.8	1.138	2,167.2	4,551
5. Mass concrete	(1:4:8)	m3	0.0	2,115	0	423.0	0	1,691.8	0
6. Reinforcement		kg	21.0	. 44	932	8.9	186	35.5	745
7. Shuttering	3 uses	m2	8.2	210	1,722	42.0	344	168.0	1,377
8. Gate for turnout	D=18"	nos	0.0	11,195	0	2,239.0	0	8.956.2	0
9. Wooden gate for reg	ulator	nos	0.0	700	0	140.0	. 0	560.0	Ö
10. RCC Pipe laying	D=18"	m	0.0	1,178	. 0	235.5	0	942.1	
11. Rubble Masonry		m3	0.0	1,520	. 0	304.0	0	1.216.0	ő
	sub-total			-	9,448		1.890	-,	7,559
Miscel Work (30%)					2,835		567		2,268
	Total				12,283		2,457		9,826

		Unit	Quantity	Total Co	st (Rs)	Forein Curre	ency (Rs)	Local Curre	ncy (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	75.7	74	5,635	14.9	1,127	59.6	4,508
2. Earthfilling		m3	57.7	60	3,478	12.1	696	48.2	2,783
3. Slop protection	Turfffing	m2	0.0	. 17	0	3.4	0	13.7	0
4. Reinforced concrete	(1:2:4)	m3	271.7	2,709	736,038	541.8	147,208	2,167.2	588,831
5. Mass concrete	(1:4:8)	m3	0.0	2,115	0	423.0	0	1,691.8	0
6. Reinforcement	` ,	kg	21,736.0	44	964,338	8.9	192,868	35.5	771,471
7. Shuttering	3 úses	m2	1,086.8	210	228,193	42.0	45,639	168.0	182,555
8. Gate for turnout		nos	0.0	11,195	0	2,239.0	0	8,956.2	0
9. Wooden gate for reg	ulator	nos	0.0	700	0	140.0	0	560.0	0
10. RCC Pipe laying		m	0.0	1,178	0	235.5	0	942.1	0
11. Rubble Masonry		m3	0.0	1,520	0	304.0	• 0	1,216.0	C
,	sub-total			•	1.937,683		387,537		1,550,147
Miscel Work (50%)	•				968,842		193,768		775,073
in the state of th	Total				2,906,525		581,305		2,325,220

S-18 Aqueduct : Type-If		Unit	Quantity	Total Co	st (Rs)	Forein Currer	ncy (Rs)	Local Currence	y (8s)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation (Common	m3	18.5	74	1,379	14.9	276	59.6	1,103
2. Earthfilling		m3	16.0	60	964	12,1	193	48.2	771
	Furfiting	m2	0.0	17	0	3.4	0	13.7	0
4. Reinforced concrete (m3	2.8	2,709	7,694	541.8	1,539	2,167.2	6,155
	1:4:8)	m3	0.0	2,115	. 0	423.0	0	1,691.8	0
6. Reinforcement		kg	28.4	44	1,260	8.9	252	35.5	1,008
	3 uses	m2	11.4	210	2,385	42.0	477	168.0	1,908
8. Gate for turnout		nos	0.0	11,195	. 0	2,239.0	. 0	8,956.2	0
9. Wooden gate for regu	lator	nos	0.0	700	0	140.0	0	560.0	. 0
	D=12"	m	8.0	710	5,677	141.9	1,135	567.7	4,542
11. Rubble Masonry		m3	0.0	1,520	0	304.0	0	1,216.0	0
	sub-total				19,359		3,872		15,487
Miscel Work (30%)	,				5,808	8	1,162		4,646
	Fotal :			4.5	25,167		5,033		20,134

		Unit	Quantity	Total Co	ost (Rs)	Forein Curr	ency (Rs)	Local Curre	ncy (Rs)
Work Items		100	1.4	Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3 -	190.0	74	14,147	14.9	2,829	59.6	11,318
2. Earthfilling		m3 ⁻		60	0	12.1	0	48.2	0
3. Slop protection	Turfffing	m2 .		17	0	3.4	0 .	÷ 13.7	0
4. Reinforced concrete	(1:2:4)	m3	30.0	2,709	81,270	541.8	16,254	2,167.2	65,016
5. Mass concrete	(1:4:8)	m3		2,115	0	423.0	0	1,691.8	. 0
6. Reinforcement	50kg/m3	kg	1,500.0	44	66,549	8.9	13,310	35.5	53,239
7. Shuttering	3 uses	m2	120.0	210	25,196	42.0	5 039	168.0	20,157
8. Flap Gate (3 gates)		ถอร		900,000	2,700,000	180,000.0	540,000	720,000.0	2,160,000
9. Wooden gate for reg	ulator	003		700	0	140.0	. 0	560.0	. 0
10. RCC Pipe laying	D=18"	m		: 1,178	0	235.5	. 0	942.1	. 0
11. Rubble Masonry	2 .0	m3		1,520	: 0	304.0	0	1,216.0	: 0
111 1100010 111100111)	sub-total				2,887,162		577.432		2,309,730
Miscel Work (30%)					866,149		173,230		692,919
Miser Holk (Son)	Total				3,753,311		750,662	4.1	3,002,649

S-20 Resectioning: T	ype a (per r	neter)							
		Unit	Quantity	Total Cos	t (Rs)	Forein Curre	acy (Rs)	Local Current	y (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	1.5	74	112	14.9	22	59.6	89
2. Earthfilling		m3		60	0	12.1	o	48.2	0
3. Slop protection	Terfifing	m2	. 1.0	17	17	3.4	3	13.7	14
or other protection	sub-total				129		26		103
Miscel Work (209					26		5		21
Mindel West (Da)	Total				155		31		124

3-21 Resectioning: T	· · · · · · · · · · · · · · · · · · ·	Unit	Quantity	Total Cost	(Rs)	Forein Curre	ncy (Rs)	Local Currence	y (Rs)
Work Items				Unit price	Amount:	Unit price	Amount	Unit price	Amount
I. Excavation	Common	m3	4.1	74	308	14.9	62	59.6	246
2. Earthfilling	• • • • • • • • • • • • • • • • • • • •	m3		.60	9	12.1	0	48.2	. 0
3. Slop protection	Turfffing	m2	1.0	17	17	3,4	3	13.7	14
or brop protection	sub-total				325		65		260
Miscel Work (20%					65	•	13		52
:	Total				390	•	78		312

App.5.4-2 Cost Breakdown of Canal Structures (6/8) Canal Structures

		Unit	Quantity	Total Cos	(Rs)	Forein Curre	ocy (Rs)	Local Currency (Rs)	
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	5,8	74	428	14.9	86	59.6	343
2. Earthfilling		m3		60	0	12.1	0	48.2	0
3. Slop protection	Turffling	m2	1.0	17	17	3.4	3	13.7	14
• •	sub-total				445		89		356
Miscel Work (209	%)				89		18		71
	Total				534		107		427

		Unit	Quantity	Total Cost	t (Rs)	Forein Curre	ncy (Rs)	Local Current	y (Rs)
Work Items			4	Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	1.4	74	107	14.9	21	59.6	86
2. Earthfilling		m3	1.4	- 60	87	12.1	17	48.2	- 69
3. Slop protection	Turfffing	m2	2.0	17	34	3,4	7	13.7	27
• •	sub-total			•	228		46		183
Miscel Work (209	(د)				46		9		37
,	Total				274		55		219

		Unit	Quantity	Total Cos	4 (Rs)	Forein Curre	ncy (Rs)	Local Currence	y (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amdunt
1. Excavation	Common	m3	0.7	74	51	14.9	10	59.6	41
2. Earthfilling		m3 ·		60	0	12.1	. 0	48,2	. 0
3. Slop protection	Turfffing	m2 ·	1.0	17	17	3.4	3	13.7	14
,	sub-total				68		14		54
Miscel Work (209	%}				14		3		- 11
	Total				81		16		65

		Unit	Quantity	Total Co	ost (Rs)	Forein Curre	ncy (Rs)	Local Currene	ry (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3		: 74	0	14.9	0	59.6	0
2. Earthfilling	100	m3	52.5	- 60	3,163	12.1	633	48.2	2.531
3. Slop protection	Turfffing	m2	8.0	17	137	3.4	27	13.7	109
4. Road wearing	Gravel	m3	0.9	151	136	30.3	27	121.1	109
	sub-total				3,436		687		2.749
Miscel Work (20%)					687	4 1 ×	137		550
	Total			1.1	4,124	100	825		3,299

"有有有人"。		Unit	Quantity'	Total Co	st (Rs)	Forein Curre	ncy (Rs)	Local Currence	y (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3		74	. 0	14.9	0	59.6	C
2. Earthfilling		m3	7.5	60	452	12.1	90	48.2	362
3. Slop protection	Tuilling	m2	3.0	17	51	3.4	- 10	13.7	41
4. Road wearing	Gravel	m3	0.9	151	136	30.3	27	121.1	109
	sub-total				639		128		512
Miscel Work (20	%)				128		26		102
	Total				767	-	: 153		614

		Unit	Quantity	Total C	ost (Rs)	Forein Curr	incy (Rs)	Local Curre	ncy (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	909.5	74	67,718	15	13,544	60	54,175
2. Earthfilling		ന3	103,0	60	6,204	12	1,241	. 48	4,963
3. Slop protection	Turffting	m2	0.0	17	0	3	. 0	14	0
4. Reinforced concrete	(1:2:4)	m3	172.5	2,709	467,359	542	93,472	2,167	373,887
5. Mass concrete	(1:4:8)	m3	0.0	2,115	. 0	423	0	1,692	0
6. Reinforcement	50kg/m3	kg	8,628.0	44	382,789	- 9	76,558	35	306,231
7. Gate Facilities	•	nos	5.0	280,000	1,400,000	56,000	280,000	224,000	1,120,000
8, Shuttering	3 uses	m2	690.1	210	144,895	42	28,979	168	115,916
9. Rubble Masonry		กา3	9.2	1,520	13,923	304	2,785	1,216	11,138
·	sub-total				2,432,888	4	496,578		1,986,310
Miscel Work (30%)					744,866		148,973		595,893
	Total				3,227,754		645,551		2,582,203

App.5.4-2 Cost Breakdown of Canal Structures (7/8)

S-28 Drainage Canal	0.0	Unit	Quantity	Total Cost	(Rs)	Forein Curre	ncy (Rs)	Local Currency (Rs)	
Work Items		2		Unit price	Amount	Unit price	Amount	Unit price	Amount
	Common	013	4.0	74	295	14.9	59	59,6	236
1. Excavation	Common	m3	4.0	60	241	12.1	48	48.2	193
2. Earthfilling	T665 - a	-	2.0	17	34	3.4	7	13.7	27
Slop protection	Turfffing		2.0	• • • • • • • • • • • • • • • • • • • •	570		114		456
	sub-total				114		23		91
Miscel Work (20%	o) Total				681		137		547

-29 Drainage Canal		Unit	Quantity	Total Cos	(R s)	Forein Curre	néy (Rs)	Local Currency (Rs)	
Work Items		Ç.1		Unit orice	Amount	Unit price	Amount	Unit orice	Amount
	Common	m3	0.8	74	63	14.9	13	59.6	50
1. Excavation	Common	m3	0.8	60	48	12.1	10	48.2	39
2. Earthfilling	me ecent		1.0	17	17	3.4	3	13.7	14
3. Slop protection	Turffling		1.0	17	128	2	26		102
and the state of	sub-total				26		Š		20
Miscel Work (20%	·)				153		2.1		123

S-30 Culvert with Gates: Type-I	Una	Quantity	Total Cos	1 (Rs)	Forein Curre	ncy (Rs)	Local Current	ty (Rs)
Work Items	0	Quantity	Unit price	Amount	Unit price	Amount	Unit price	Amount
	m3	148.6	74	11,064	14.9	2,213	59.6	8,852
I Lite William	m3	50.7	- 60	3,055	12.1	611	48.2	2,444
2. Earthfilling		0.0	17	0	3.4	0	13.7	0
3. Slop protection Tufffing		26.3	2,709	71,247	541.8	14.249	2,167.2	56,998
4. Reinforced concrete (1:2:4)	m3			85,225	423.0	17,045	1,691.8	68,180
5. Mass concrete (1:4:8)	m3	40.3	2,115	11.668	8.9	2,334	35.5	9,335
6. Reinforcement	kg	263.0	44			10.767	168.0	43,069
7. Shuttering 3 uses	m2	256.4	210	53,836	42.0	10,707	100.0	42,002
8. Gate for turnout	nos	0.0	· O ·	9		204	408.0	816
9. Wooden gate for reg 4'x4'	nos	2.0	510	1,020	102.0	204	408.0	010
to. RCC Pipe laying	nos	0.0	0	0		. 0		
11. Rubble Masonry	m3	12,8	1,520	19,4\$6	304.0	3,891	1,216.0	15,564
sub-total	1			256,571		51,314		205,257
Miscel Work (30%)				76,971		15,394		61,577
Miscel Work (30%)				333,543	3	66,709		266,834

S-29 Drainage Can			Unit		uantity		Total Cos	t (Rs)	Forein Cune	жy (Rs)	Local Currency	/ (Rs)
Work Items				•			Unit orice	Amount	Unit price	Amount	Unit price	Amoun
1. Excavation		Common	m3		2.0	73	74	149	14.9	30	59.6	119
2. Earthfilling		Common.	m3	. :	2.0		60	121	12.1	24	48.2	9
	÷	Turffling			1.0	,	17	17	3.4	3	13.7	1
3. Slop protection		sub-total			•	•		287		57		22
Minal West ()	vor.		- 1					57	-	11		4
Miscel Work (2	0763	Total						344		69		27

6-30 Protection Works (per num	Unit	Quantity	Total Cos	t (Rs)	Forein Curre	ncy (Rs)	Local Curren	cy (Rs)
Work Items	Oiiii	Quantity	Unit price	Amount	Unit price	Amount	Unit price	Amount
	m3	2.0	74	149	14.9	30	59.6	119
1. Dittion		2.0	60	121	12.1	24	48.2	96
2. Earthfilling	m3			34	3.4	7	13.7	27
3. Slop protection Turiffing	m2	2.0	17		541.8	Ó	2.167.2	0
4. Reinforced concrete (1:2:4)	m3	0.0	2,709	0			1.691.8	15,480
5. Mass concrete (1:4:8)	m3	9.2	2.115	19,350	423,0	3,870	• • • • • • • • • • • • • • • • • • • •	
6. Reinforcement 50kg/m3	kg	0.0	44	0.	8.9	U	35.5	0
U/ / / / / / / / / / / / / / / / / / /	m2	36.6	210	7,685	42.0	1,537	168.0	6,148
r, ononering		50.0	900,000	0	180,000.0	0	720,000.0	. 0
8. Flap Gate (3 gates)	nos		700	ŏ	140.0	0	560.0	0
9. Wooden gate for regulator	nos			0	235.5	ň	942.1	0
 RCC Pipe laying D=18" 	m		1,178	-		Ň	1,216.0	. 0
11. Rubble Masonry	m3		1,520	0	304.0	4.460	1,210.0	•
sub-total	1			27,339		5,468		21,871
Miscel Work (30%)				8,202		1,640		6,561
Miscel Work (30%)				35,540		7,108		28,432

S-31 Groynes (per num		Unit	Quantity	Total Co	st (Rs)	Forein Curr	ency (Rs)	Local Curre	ncy (Rs)
Work Items			-	Unit price	Amount	Unit price	Amount	Unit price	Amoun
1. Excavation	Common	m3	15,000.0	74	1,116,873	14.9	223,375	59.6	893,498
2. Earthfilling		m3	0.0	60	0	12.1	0	48.2	•
3. Slop protection	Turffling	m2	0.0	17	0	3.4	0	13.7	(
4. Reinforced concrete	(1:2:4)	m3	0.0	2,709	0	541.8	0	2,167.2	· · · · · · · · · · · · · · · · · · ·
5. Mass concrete	(1:4:8)	m3	0.0	2,115	0	423,0	0	1,691.8	. (
6. Reinforcement	50kg/m3	kg	0.0	44	0	8.9	0	35.5	(
7. Shuttering	3 uses	m2	0.0	210	0	42.0	0	168.0	. (
8. Flap Gate (3 gates)		nos	0.0	900,000	0	180,000.0	0	720,000.0	(
9. Wooden gate for reg	ulator	nos	0.0	700	. 0	140.0	0	560.0	. (
0. RCC Pipe laying	D=18"	m	0.0	1,178	. 0	235.5	. 0	942,1	(
1. Rubble Masonry		m3	2,400.0	1,520	3,647,924	304.0	729,585	1,216.0	2,918,339
	sub-total		·		4,764,796		952,959		3,811,837
Miscel Work (30%)					1,429,439		285,888		1,143,551
	Total				6,194,235		1,238,847		4,955,388

		Unit	Quantity	Total C	ost (Rs)	Forcia Curi	rency (Rs)	Local Curre	ency (Rs) -
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	15,000.0	74	1,116,873	14.9	223,375	59.6	893,498
2. Earthfilling		m3	0.0	60	0	12.1	: O	48.2	C
3. Slop protection	Turfffing	m2	0.0	117	0	3.4	- 0	13.7	C
4. Reinforced concrete		m3	100.0	2,709	270,901	541.8	54,180	2,167.2	216,721
5. Mass concrete	(1:4:8)	m3	0.0	2,115	0	423.0	0	1,691.8	
6. Reinforcement	50kg/m3	kg	5,000.0	. 44	221,830	8.9	44,366	35.5	177,464
7. Shuttering	3 uses	m2	400.0	210	83,987	42.0	16,797	168.0	67,190
8. Flap Gate (3 gates)		nos	10.0	900,000	9,000,000	180,000.0	1,800,000	720,000.0	7,200,000
9. Wooden gate for reg	ulator	nos	0.0	700	0	140.0	0	560.0	
10. RCC Pipe laying	D=18"	m	0.0	1,178	0	235.5	. 0	942.1	C
11. Rubble Masonry		m3	0.0	1,520	. 0	304.0	. 0	1,216.0	C
	sub-total	••••		-,	10.693.591		2,138,718	•	8,554,873
Miscel Work (30%)					3,208,077		641,615		2,566,462
more work (ours)	Total			•	13,901,668		2,780,334		11,121,334

S-33 Karlija SWE (S),7 gates (pe	Unit	Quantity	Total C	ost (Rs)	Forein Cur	rency (Rs)	Local Curre	ncy (Rs)
Work Items			Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation Common	m3	15,000.0	74	1,116,873	14.9	223,375	59.6	893,498
2. Earthfilling	m3	0.0	60	0	12.1	. 0	48.2	. 0
3. Slop protection Turfffing	m2	0.0	17	0	3.4	0	13.7	0
4. Reinforced concrete (1:2:4)	m3	70.0	2,709	189,631	541.8	37,926	2,167.2	151,705
5. Mass concrete (1:4:8)	กา3	0.0	2,115	0	423.0	0	1,691.8	0
6. Reinforcement 50kg/m3	kg	3,500.0	44	155,281	8.9	31,056	35.5	124,225
7. Shuttering 3 uses	m2	280.0	210	58,791	42.0	11,758	168.0	47,033
8. Flap Gate (3 gates)	nos	7.0	900,000	6,300,000	180,000.0	1,260,000	720,000.0	5,040,000
9. Wooden gate for regulator	nos	0.0	700	0	140.0	. 0	560.0	- 0
10. RCC Pipe laying D=18"	m	0.0	1,178	0	235.5	0	942.1	0
11. Rubble Masonry	m3	0.0	1,520	0	304.0	. 0	1,216.0	. 0
sub-total		•		7,820,575		1,564,115		6,256,460
Miscel Work (30%)				2,346,173		469,235		1,876,938
Total				10,166,748		2,033,350		8,133,398

		Unit	Quantity	Total Co	ost (Rs)	Forein Cun	rency (Rs)	Local Curre	ncy (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amoun
1. Excavation	Common	m3	15,000.0	74	1,116,873	14.9	223,375	59.6	893,498
2. Earthfilling		m3	0.0	60	0	12.1	0	48.2	. (
3. Slop protection	Turiffing	m2	0.0	17	. 0	3.4	. 0	13.7	, (
4. Reinforced concrete	(1:2:4)	กา3	40.0	2,709	108,360	541.8	21,672	2,167.2	86,688
5. Mass concrete	(1:4:8)	m3	0.0	2,115	0	423.0	0	1,691.8	(
6. Reinforcement	50kg/m3	kg	2,000.0	44	88,732	8.9	17,746	35.5	70,986
7. Shuttering	3 uses	m2	160.0	210	33,595	42.0	6,719	168.0	26,876
8. Flap Gate (3 gates)		nos	4.0	900,000	3,600,000	180,000.0	720,000	720,000.0	2,880,000
9. Wooden gate for reg	ulator	nos	0.0	700	0	140.0	. 0	560.0	(
10. RCC Pipe laying	D=18"	m	0.0	1,178	0	235.5	. 0	942.1	0
11. Rubble Masonry		m3	0.0	1,520	0	304.0	0	1,216.0	(
•	sub-total				4,947,560		989,512		3,958,048
Miscel Work (30%)					1,484,268		296,854		1,187,414
	Total				6,431,828		1,286,366		5,145,462

App.5.4-3 Cost Breakdown of Anicut Structures

Cost Estimatuon for Anicut Scheme

A-1 Main Structure : Type-las (per number)

		Unit	Quantity	Total 6	Cost (Rs)	Forein Cui	tency (Rs)	Local Cu	rrency (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	909.5	74	67,718	15	13,544	60	54,175
2. Earthfilling		m3	103.0	60	6,204	12	1,241	48	4,963
3. Slop protection	Turfffing	m2	0.0	17	0	3	0	14	0
4. Reinforced concre	te (1:2:4)	m3	172.5	2,709	467,359	542	93,472	2,167	373,887
5. Mass concrete	(1:4:8)	m3	0.0	2,115	, 0	423	0	1,692	0
6. Reinforcement	50kg/m3	kg	8,628.0	44	382,789	9	76,558	35	306,231
7. Shuttering	3 uses	m2	690.1	210	144,895	42	28,979	168	115,916
8. Rubble Masonry		กา3	}.2	1,520	13,923	304	2,785	1,216	11,138
•	sub-total				1,082,888		216,578		866,310
Miscel Work (30%)				324,866		64,973		259,893
	Total				1,407,754		281,551		1,126,203

A-2 Revetment : (per number)

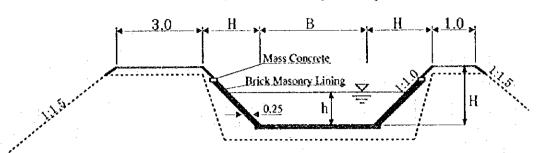
		Unit	Quantity	Total C	ost (Rs)	Forein Cur	rency (Rs)	Local Cur	rency (Rs)
Work Items				Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	73.4	74	5,466	15	1,093	60	4,373
2. Earthfilling		m3	0.0	60	0	12	0	48	0
3. Slop protection	Turffling	m2	0.0	17	0	3	0	- 14	0
4. Reinforced concrete	(1:2:4)	m3	7,6	2,709	20,480	542	4,096	2,167	16,384
5. Mass concrete	(1:4:8)	m3	0.0	2,115	0	423	0	1,692	0
6. Reinforcement		kg	378.0	44	16,770	.9	3,354	35	13,416
7. Shuttering	3 uses	m2	30.2	210	6,349	42	1,270	168	5,080
8. Rubble Masonry		m3	73.4	1,520	111,581	304	22,316	1,216	89,265
•	sub-total				160,647		32,129	•	128,517
Miscel Work (30%)					48,194		9,639		38,555
	Total				208,841		41,768	1	167,073

A-3 Spillway: (per number)

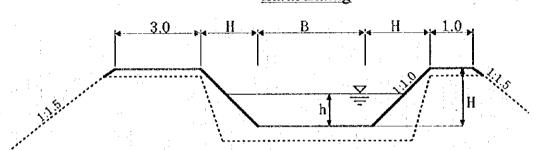
	•	Unit	Quantity	Total Co	st (Rs)	Forein Cu	rrericy (Rs)	Local Cu	rrency (Rs)
Work Items	. : 1		- 1	Unit price	Amount	Unit price	Amount	Unit price	Amount
1. Excavation	Common	m3	612.0	74	45,571	- 15	9,114	60	36,457
2. Earthfilling		m3	103.0	60	6,204	12	1,241	48	4,963
3. Slop protection	Turffting	m2	0.0	17	0	3	0	14	0
4. Reinforced concrete	(1:2:4)	m3	82.7	2,709	223,954	542	44,791	2,167	179,163
5. Mass concrete	(1:4:8)	m3	0.0	2,115	0	423	0	1,692	. 0
6. Reinforcement		kg	4,133.5	44	183,387	9	36,677	35	146,709
7. Shuttering	3 uses	m2	330.7	210	69,432	. 42	13,886	168	55,546
8. Rubble Masonry		m3	9.2	1,520	13,923	304	2,785	1,216	11,138
	sub-total				542,471		108,494		433,977
Miscel Work (30%)			-		162,741		32,548		130,193
	Total				705,212		141,042		. 564,170

App.5.5-1 Typical Cross Section of Irrigation Canals

Brick Masonry Lining



Earth Lining



Dimensions

Lining	Туре	B (m)	H (m)	h (m)	Discharge (m ³ /s)
	BI	5.0	1.9	0.95	4.61
Brick Masonry	BII	4.0	1.9	0.95	3.72
	BIII	3,0	1.8	0.90	2.59
	BIV	2.0	1.3	0.65	1.01
i .	BV	1.0	1.5	0.75	0.74
	BVI	0.8	1.2	0.60	0.41
	BVII	0.6	0.7	0.35	0.12
	EI	5.0	2.2	1.11	4.73
Earth	Ell	3.0	2.0	1.00	2.49
	EIII	1.5	1.4	0.70	0.72
	EIV	0.8	0.7	0.35	0.12