



Engineering Assessment of 2006 Floods
February 2006

APPENDIX 7 PROGRAMME OF WORKS

**PROGRAMME OF WORKS
PROPOSED BY NDIA**

SUMMARY OF WORKS

Item No	Region No's	Amount G\$ (Million)
1	Dredging of Abary, Mahaicony, Mahaica and Pomeroon River Mouth.	800.0 (4.0 M US\$)
2	Programme of Works for Region No. 2	250.0 (1.25 M US\$)
3	Programme of works for Region No. 4	220.0 (1.1 M US\$)
4	Programme of Works for Region No. 5	630.0 (3.150 M US\$)
5	Programme of Works for MMA/ADA	300.0 (1.5 M US\$)
6	Programme of Works for Boresarie Water Conservancy	200.0 (1.0 M US \$)
7	Programme of Works for East Demerara Water Conservancy	1055.0 (5.275 US\$)
8	Purchase and Installation of 7 No. 42" dia @ 120 cu.ft/sec each Hydro Flow drainage pumps <ul style="list-style-type: none"> - 3 No. for East Demerara Water Conservancy - 2 No. for Region No. 4 - 2 No. for MMA/ADA 	210.0 (1.050 US\$)
Total		3665.0

Amount in Guyana Dollars: 3.665 Billion

Equivalent In United States Dollars: 18.325 Million

PROGRAMME OF WORKS TO AVOID FLOODING IN REGION NO. 2 POMEROON-SUPERNAAM

Item No	Description of Works	Quantity	Amount G\$ (Million)
PROGRAMME OF WORKS FOR REGION NO. 2			
1	Desilting of Coizer outfall at Coizer/Pomeroon		6
2	Desilting of drainage canals within Coizer/Pomeroon area.		7
3	Widening of Relief Channel at Good Hope to Pomernoon Supernaam River		1.5
4	Rehabilitation of Coizer Pump Station/Pomeroon		100.0
5	Construction of relief structure at Mainstay Main Canal.	1	4
6	Construction of Relief Structure and Raise Embankment of Relief channel at Capoey Main Canal.	1	6
7	Construction of Relief structure and desilting of relief channel at Riverstown.	1	6
8	Raising of Northern embankment at Unu Creek Relief Channel.	-	2
9	Widening of relief structure at Somerset and Berks.	1	8
10	Construction of timber revetment at Plantation Andrews outfall.	-	14
11	Construction of Timber revetment at Sommerset and Berks Outfall.	-	14
12	Construction of Timber Revetment at Unu Creek Outfall.	-	14
13	Rehabilitation of Coizer /Pomeroon Sea Sluice.	-	10
14	Rehabilitation of Iterbisi Conservancy Embankment.	-	20
15	Construction of Drainage Sluice at Charity.	1	30
16	Desilting of Canal at Charity	-	1.5
17	Desilting of Relief channel at Mainstay	-	3.0
18	Desilting of Relief cnahel at Unu Creek	-	2.0
19	Desilting of canal at La union	-	1.0
Total			250.0

PROGRAMME OF WORKS TO AVOID FLOODING IN REGION NO. 4

Item No	Description of Works	Quantity	Amount G\$ (Million)
PROGRAMME OF WORKS FOR REGION NO. 4			
1	Construction of New Drainage Sluices at Plaisance, Triumph and Good Hope.	3	145.0
2	Excavation of drainage channels, construction of road culvert and sluices along the East Bank Demerara.	-	60.0
3	Construction of Road Culvert at Supply and Embankment works on Crown Dam, Region N0.4	-	15.0
Total			220.0

PROGRAMME OF WORKS TO AVOID FLOODING IN REGION NO. 5

Item No	Description of Works	Quantity (rods)	Amount G\$ (Million)
REGION NO. 5 PROGEMME OF WORKS			
1	Rehabilitate Prospect East Sideline Canal	1500	4.5
2	Rehabilitate Rebecca Lust (Highdam) East Side Line Canals	1600	4.8
3	Reabillitate Broomhall West Sideline, Middlewalk and East Sideline Canals	2866	8.5
4	Rehabilitate Fairfield West Sideline Canal	1600	4.8
5	Rehabilitate Fairfield East Sideline Canal	1000	2.5
6	Rehabilitate Zeeland West Sideline Canal	1500	9.0
7	Rehabilitate Rutherford Canal and Embankments	1000	7
8	Raise sections of Industry Canal North Dam	2300	3.5
9	Rehabilitate Broken Waterland Canal	1600	3.2
10	Cleaning of drains around Mahaicony Primary and Secondary Schools.	450	0.7
11	Raising sections of Perth Baiboo Canal dam at Handsometree	450	0.7
12	Raising of Farm Dam Mahaicony	600	1.2
13	Raising of embankment in south east section of Mahaicony Bellamy Dam	200	0.6
14	Raising of embankment at No. 10, Quku Dam and Fedric Johanna Area within Mahaica.	3000	3.6
15	Rehabilitate De Hoop Railway Embankment	2100	2.8
16	Raising of embankment at Strathcampbell, Perth Village, Fertitude and Spoona within Mahaicony	7000	8.8
17	Raising of Basket Plimper Branch Canal embankments	600	1.8
18	Construction of Drainage Culvert at Mortice, Mahaicony	-	14.0
19	Construction of Drainage Culvert at Perth Village, Mahaicony	-	15.0
20	Repairs to Sukdeo Drainage Culvert, Mahaicony	-	8.0
21	Construction of Revetment and Raising of Embankment at Perth Baiboo.	-	9.0
23	Cleaning of canals and Raising of Embankment at Morrision/Pert Village Area, Mahaicony.	8000	16.0
24	Rehabilitate Bushly East Sideline Canal	1600	5
25	Construct control structure at Zeeland West Sideline and Industry, Mahaicony	-	6
26	Construct Control Structure at Bushy Park East Sideline and Industry	-	6
27	Construct Control Structure at Group treanch Mahaica.	-	8
28	Construct Control Structure at Poor Fellow Canal Mahaica.	-	8

29	Rehabilitate Perth Baiboo Canal and Rebuild Embankments.	1790	10
30	Rehabilitate Handsometree canal and rebuild embankments	1150	7
31	Raise Sections of Industry South Canal damm	2300	7
32	Rehabilitate Poor Fellow canal and rebuild embankments	700	5
33	Rehabilitate Baiboo canal and rebuild embankments	600	4
34	Rehabilitate Washclothes Canal and Rebuild embankments	2300	14
35	Extension of Industry Canal	815	8
36	Rehabilitate sections of the Mahaica River flood Embankment	1800	12
37	Raising High Cashcrops bed for Big Baiboo and Grasshook Farmers area.	-	12
38	Rehabilitation of Flood embankment from Baiboo Creek to Grass Hook.	1125	15
39	Construction of Flood Embankment from Grass Hook to Bara Bara Canal	2333	75
40	Excavation of Baba Bara Canal from First Depth Mahaicony to Mahaica River and use materials removed from channels to construct dam between channels.	3960	175
41	Rehabilitation of Bara Bara Canal from Mahaicony River to First Depth and use materials removed from channel to construct dam on the southern side of channel.	880	15
42	Construction of Reinforced Concrete head regulator with lifting mechanism and doors at the intersection of the Bara Bara Canal Mahaicony River.	-	18
43	Construction of reinforced concrete head regulator with lifting mechanism and doors at the intersection of of the Bara Bara canal and Mahaica River.	-	18
44	Construction of Reinforced Concrete Head Regulator with lifting mechanism and doors at the intersection of the Bara Bara Canal and Perth Biaboo Canal.	-	18
45	Rehabilitation of Bellamy Canal from Mahaicony to Mahaica.	5280	54
Total			630.0

PROGRAMME OF WORKS TO AVOID FLOODING WITHIN THE MMA/ADA AREA IN REGION NO. 5

Item No	Description of Works	Quantity	Amount G\$ (Million)
PROGRAMME OF WORKS FOR MMA/ADA			
1	Refurbishment of Pumps at Trafulgar Pump Station, Region No. 5.Trafulgar	4	175
2	Cleaning and Excavation of Drainage Channels and Structures.	-	125
Total			300.0

**REHABILITATION OF THE BORERSARIE WATER CONSERVANCY EMBANKMENT AND CLEANING AND
EXCAVATION OF RELIEF CHANNELS**

Item No	Description of Works	Quantity	Amount G\$ (Million)
PROGRAMME OF WORKS FOR THE BORERSARIE WATER CONSERVANCY			
1	Rehabilitation of the Borersarie Water Conservancy Embankment at Low sections and Cleaning and excavation of relief channels.	-	200.0
Total			200.0

**REHABILITATION OF THE EAST DEMERARA WATER CONSERVANCY EMBANKMENT, STRUCTURES,
OUTLETS AND CLEANING AND EXCAVATION OF WATER WAYS**

Item No	Description of Works	Quantity	Amount G\$ (Million)
PROGRAMME OF WORKS FOR THE EAST DEMERARA WATER CONSERVANCY			
1	Rehabilitation of the East Demerara Water Conservancy Embankment at Low sections and Cleaning and Excavation of Relief channels and Water Ways.	-	700.0
2	Sealing of Intake Structures Success, BV, Montrose, Triumph, Plaisance, Nabacilis, Enterprise and Nonprail Old Intake Structures.	-	35.0
3	Repairs to the Lama Sluices.	2 No.	35.0
4	Repairs to Kofi and Cunia relief structures on the Conservancy embankment	-	10.0
5	Construction of revetment at outfall channel at Kofi relief structure.	-	35.0
6	Construction of road culvert, rehabilitation of sluice and excavation of channel and raising of embankment at Cunia old Channel.	-	180.0
7	Repairs to Kofi relief channel embankment and construction of check sluices at CNC.	-	60.0
Total			1055.0

**PURCHASE AND INSTALLATION OF DRAINAGE PUMPS FOR EAST DEMERARA WATER CONSERVANCY,
REGION NO. 4 AND MMA/ADA**

Item No	Description and Location	Quantity	Amount G\$ (Million)
1.0	Purchase and Installation at Land of Caanan, East Demerara Water Conservancy, of three (3) 42" dia @ 120 cu.ft/sec drainage pumps.	3	90.0
2.0	Purchase two (2) 42" dia @ 120 cu.ft/sec mobile drainage pumps to operate within Region No. 4.	2	60.0
3.0	Purchase two (2) 42" dia @ 120 cu.ft/sec mobile drainage pumps to operate within MMA/ADA area, Region No. 5	2	60.0
Total			210.0

DREDGING OF CREEK AND RIVER MOUTH

Item No	Description	Amount G\$ (Million)
1	Dredging of the Abary Creek Mouth	200.0
2	Dredging of the Mahaicony Creek Mouth	180.0
3	Dredging of the Mahaica Creek Mouth	200.0
4	Dredging of the Pomeroon River Mouth	220.0
Total		800.0