

**JAPAN INTERNATIONAL COOPERATION AGENCY**

**MINISTRY OF HOUSING & PLANTATION INFRASTRUCTURE  
SRI LANKA LAND RECLAMATION & DEVELOPMENT CORPORATION**

**THE STUDY  
ON  
STORM WATER DRAINAGE PLAN  
FOR THE COLOMBO METROPOLITAN REGION  
IN  
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA**

**FINAL REPORT  
VOLUME V : DATA BOOK**

**MARCH 2003**

**NIPPON KOEI CO., LTD.**

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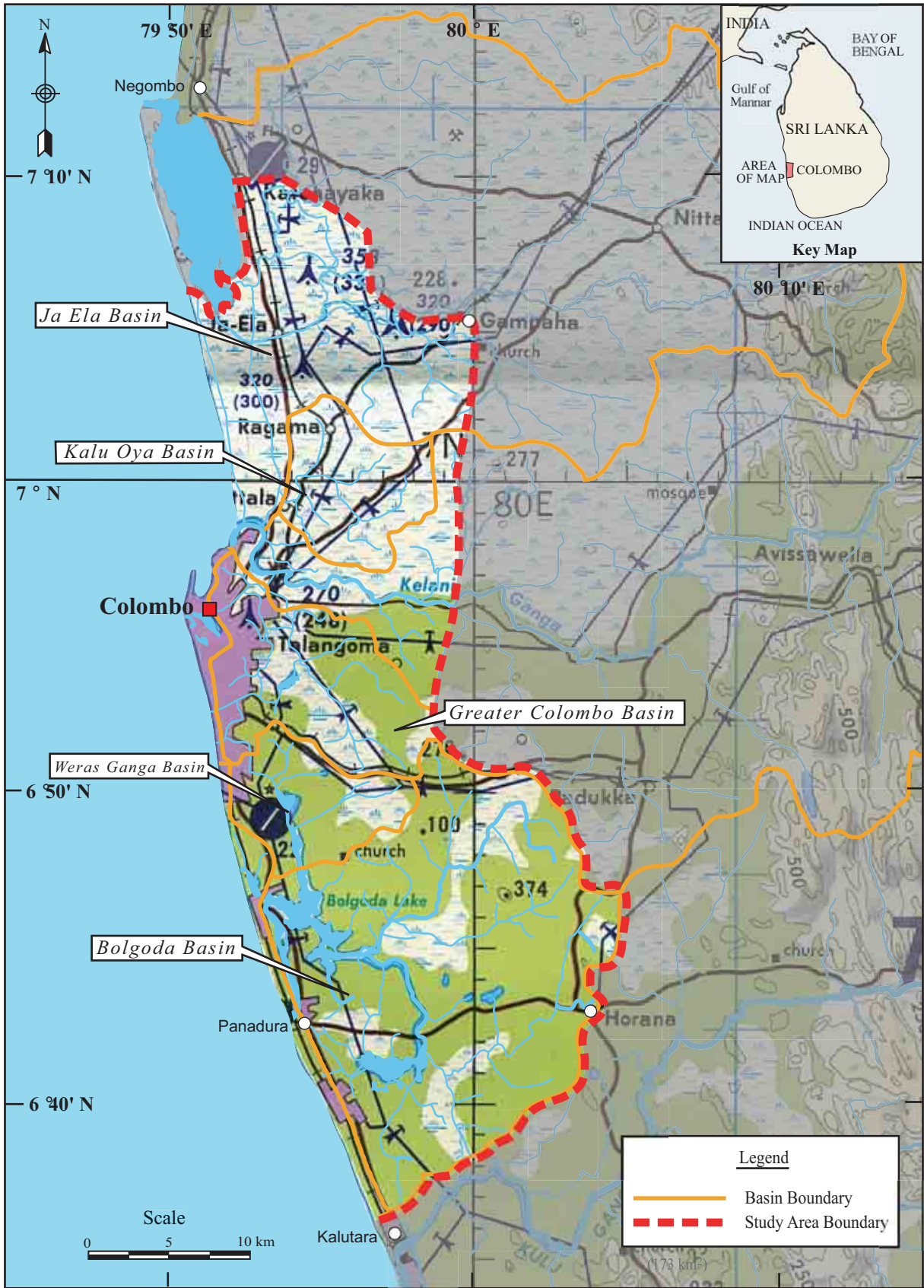
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*The Study on Storm Water Drainage Plan  
for the Colombo Metropolitan Region  
in the Democratic Socialist Republic of Sri Lanka*

JAPAN INTERNATIONAL COOPERATION AGENCY

Location Map

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**VOLUME V : DATA BOOK**

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# **DATA 1 : TOPOGRAPHIC SURVEY RESULTS**

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**DATA 1 : TOPOGRAPHIC SURVEY RESULTS**

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## 1. Executed Work Quantities

The executed work quantities of longitudinal and cross sectional survey and sounding survey are shown in the following table. The locations of longitudinal and cross sectional survey and sounding survey are shown in Figures 1 to 5.

**Executed Longitudinal and Cross Sectional Survey**

Basin	River Name	Longitudinal Survey Distance (km)	Cross Sectional Survey (nos.)
<b>Master Plan Phase</b>			
Ja Ela	Ja Ela Main	29	59
	Ja Ela 1	1.5	4
	Ja Ela 2	6.5	14
	Connecting Channel	1.5	4
	Dandugam Oya	40	81
	Kalu Oya	4	9
	Mapalam Oya	16.5	34
	Sub total	99	201
Kalu Oya	Kalu Oya Main	15.5	32
	Kalu Oya 1	5	11
	Kalu Oya 2	1	3
	Kalu Oya 3	3	7
	Kalu Oya 4	4	9
	Kalu Oya 5	3.5	8
	Kalu Oya 6	2	5
	Kalu Oya 7	2	5
	Sub total	36	80
Bolgoda	Weras Ganga	5.5	12
	Weras Ganga 1	4.5	10
	Bolgoda Canal	7.5	16
	Bolgoda Ganga	11.5	24
	Maha Oya	18.5	38
	Maha Oya 1	7	15
	Maha Oya 2	3.5	8
	Maha Oya 3	8	17
	Maha Oya 4	6.5	14
	Panadura Ganga	6	13
	Talpitiya Ela	3	7
	Keppu Ela	9.5	20
	Panape Ela	14	29
	Alut Ela	11.5	24
	Channel to Parliament	4	9
	Sub total	120.5	256
	Total	255.5	537

Basin	River Name	Longitudinal Survey Distance (km)	Cross Sectional Survey (nos.)
<b>Feasibility Study Phase</b>			
Weras Ganga	Weras Ganga	4.2	21
	Weras Ganga Tributary (W1)	1.6	17
	Weras Ganga Tributary (W2)	1.4	15
	Weras Ganga Tributary (W3)	0.8	9
	Weras Ganga Tributary (W4)	1.4	16
	Bolgoda Canal	4.9	29
	Rattanapitiya Ela	3.2	50
	Nugegoda Ela	2.5	29
	Depawa Ela (D1)	0.4	5
	Depawa Ela (D2)	1.9	20
	Depawa Ela (D3)	1.6	17
	Maha Ela	7.1	71
	Maha Ela Tributary (M1)	2.1	22
	Maha Ela Tributary (M2)	1.3	13
	Maha Ela Tributary (M3)	2.4	26
	Total		36.8

**Executed Sounding Survey in North Bolgoda Lake**

Basin	Name	Total Length of Survey Line (km)	Sounding Point (nos.)
Bolgoda	North Bolgoda Lake	20	400



## 2. Temporary Bench Marks

The list of temporary bench marks (TBMs) are shown in the following table. The locations of TBMs are shown in Figures 1 to 5.

**List of Temporary Bench Marks**

Basin	TBM No.	Elevation (m MSL)	Location
<b>Master Plan</b>			
Ja Ela	1	2.463	Yagodamulla - Katunayake Road Bridge
	2	12.887	Dewalapola - Udugumpola Road Bridge
	3	13.297	Daraluwa Bridge
	4	6.037	Minuwangoda Road Bridge
	5	6.704	Tammita - Ekala Road Bridge
Kalu Oya	1	10.801	Gonahena - Road Culvert (No.1/5)
	2	4.600	Kandy Road Bridge (No.14/1)
	3	2.299	Welikadamulla Road bridge
	4	1.768	Wattala Bund Gate
Bolgoda	1	13.150	Kottawa South - Rukmale Road Culvert
	2	8.397	Arawwala Road Bridge
	3	4.496	Horana Road Bridge (No.19/3)
	4	6.501	Horana Road - Bandaragama Road Bridge
	5	4.426	New Galle Road Bridge
	6	3.479	Gonaduwa - Kokduwa Road Bridge
	7	5.729	Kalutara – Galpota Road Bridge
	8	1.939	Kalutara – Etanamada Road Bridge
North Bolgoda Lake	1	1.273	Willorawatta near Kitalandaluwa Totupola
	2	1.425	Deltara Madapotha Tuduwa Road near Wewawella Junction
	3	2.114	Madapotha Tuduwa Junction
	4	1.275	Bus Stop along Indigahatotupola Road
	5	1.833	Along Diggala Road
	6	1.123	Ganga Ihala Road at Sugatharamaya Temple
<b>Feasibility Study</b>			
Weras Ganga	1	3.590	Old Kesbewa Road at High Level Plaza
	2	3.766	Old Kesbewa Road near Welawatta Road Junction
	3	6.980	Hospital Road Culvert of Nugegoda Ela
	4	14.755	Hospital Road at Dutugemunu Road Junction
	5	1.493	Bend Point of Bolgoda Canal in downstream of Hill Street
	6	2.120	Sudharmasara Road along Bolgoda Canal near Hill Street
	7	4.558	Near Horana Road Culvert of Maha Ela Tributary
	8	3.860	Paddy along Maha Ela Tributary (M1) near Horana Road
	9	1.303	Maha Ela in downstream of Horana Road Culvert
	10	1.184	Meddowila Road along Maha Ela
	11	6.038	Paddy along Maha Ela (M3) in downstream of Erawala Road
	12	7.961	Erawala Road Culvert of Maha Ela (M3)
	13	1.619	Along Pillewa Temple Road
	14	1.736	Paddy along Depawa Ela in downstream of Horana Road
	15	4.460	Paddy along Maha Ela (M2) in upstream of Erawala Road
	16	5.118	Erawala road Culvert of Maha Ela (M2)

### 3. Output

#### (1) Master Plan Phase

- Final Report: 1 copy
- Drawings: 1 set of original sheets
  - a) Longitudinal profile: horizontal scale of 1:2,000, vertical scale of 1:200
  - b) Cross section: scale of 1:200
  - c) Contour map of the North Bolgoda Lake: scale of 2,000, contour interval of 1 m

**Number of Drawings of Longitudinal and Cross Sectional Survey**

River	Longitudinal Profile (sheets)	Cross Section (sheets)	Crossing Structure (sheets)	Contour Map (sheets)
Ja Ela Main	10	20	5	-
Ja Ela 1	1	2	1	-
Ja Ela 2	3	5	2	-
Dandugam Oya	14	36	6	-
Mapalam Oya	6	12	3	-
Connecting Channel	1	2	1	-
Kalu Oya (Ja Ela Basin)	2	3	1	-
Kalu Oya Main	6	11	3	-
Kalu Oya 1	2	4	1	-
Kalu Oya 2	1	1	1	-
Kalu Oya 3	1	2	1	-
Kalu Oya 4	2	3	1	-
Kalu Oya 5	2	3	1	-
Kalu Oya 6	1	2	1	-
Kalu Oya 7	1	2	1	-
Weras Ganga Main	2	2	1	-
Weras Ganga 1	3	6	1	-
Bolgoda Canal	2	4	1	-
Maha Oya Main	7	13	2	-
Maha Oya 1	3	5	2	-
Maha Oya 2	2	3	1	-
Maha Oya 3	3	6	1	-
Maha Oya 4	3	5	1	-
Panadura Ganga	3	6	1	-
Bolgoda Ganga	5	7	2	-
Talpitiya Ela	1	4	1	-
Keppu Ela	4	10	1	-
Panape Ela	5	10	1	-
Alut (Mawala) Ela	4	8	2	-
Channel to Parliament	2	3	1	-
North Bolgoda Lake	-	-	-	16

(2) Feasibility Study Phase

- Final Report: 1 copy
- Drawings: 1 set of original sheets
  - a) Longitudinal profile: Horizontal scale of 1:2,000, vertical scale of 1:100
  - b) Cross Section: scale of 1:100

**Number of Drawings of Longitudinal and Cross Sectional Survey**

River	Longitudinal Profile (sheets)	Cross Section (sheets)	Crossing Structure (sheets)
Weras Ganga	9	32	9
W1 (Weras Tributary)	2	3	
W2 (Weras Tributary)	2	3	
W3 (Weras Tributary)	1	2	
W4 (Weras Tributary)	2	3	
Bolgoda Canal	6	7	
Rattanapitiya Ela	4	8	
Nugegoda Ela	3	5	
Depawa Ela (D1)	1	1	
Depawa Ela (D2)	3	4	
Depawa Ela (D3)	2	3	
Maha Ela Main	7	18	
M1 (Maha Tributary)	3	4	
M2 (Maha Tributary)	2	3	
M3 (Maha Tributary)	3	9	