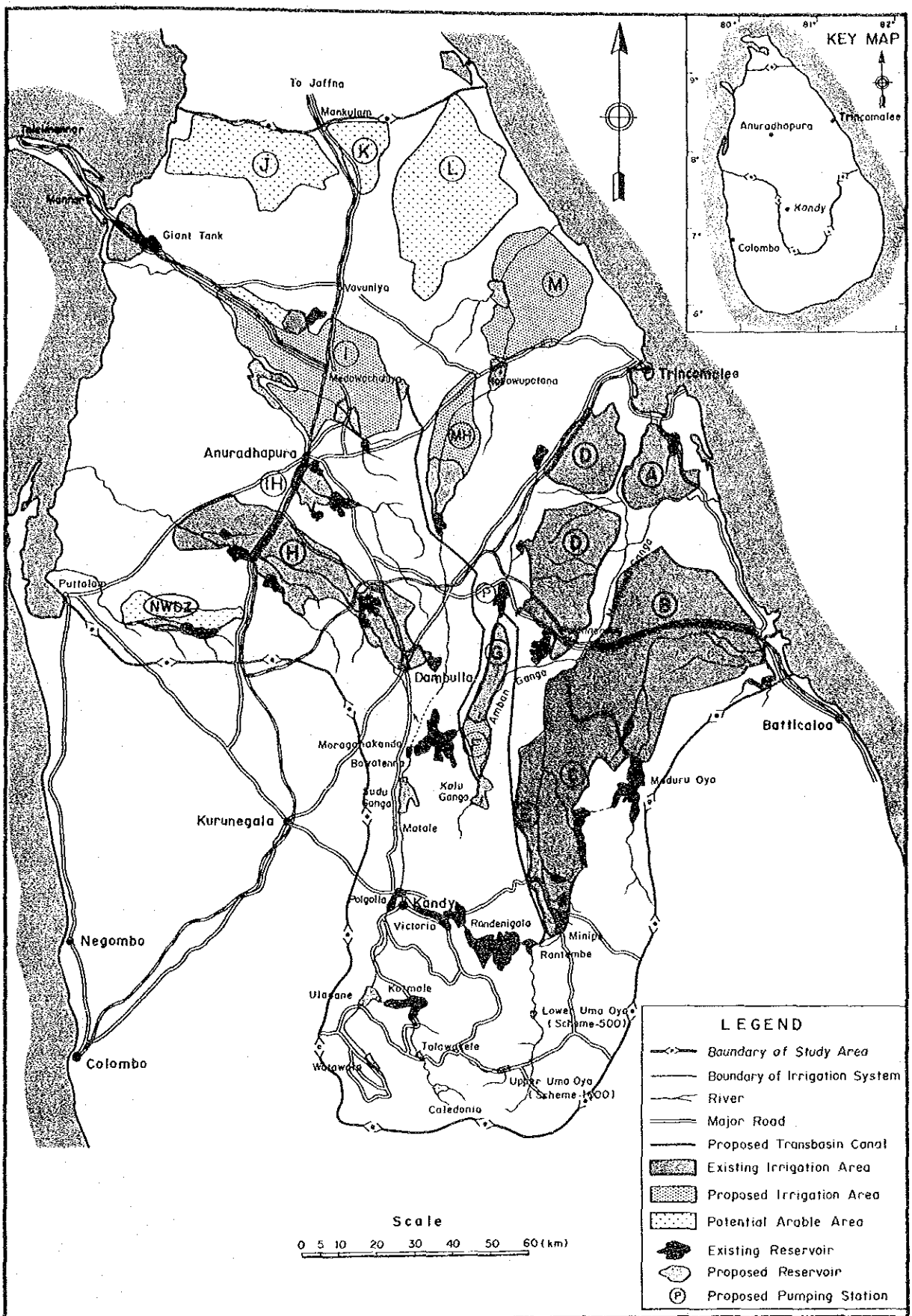
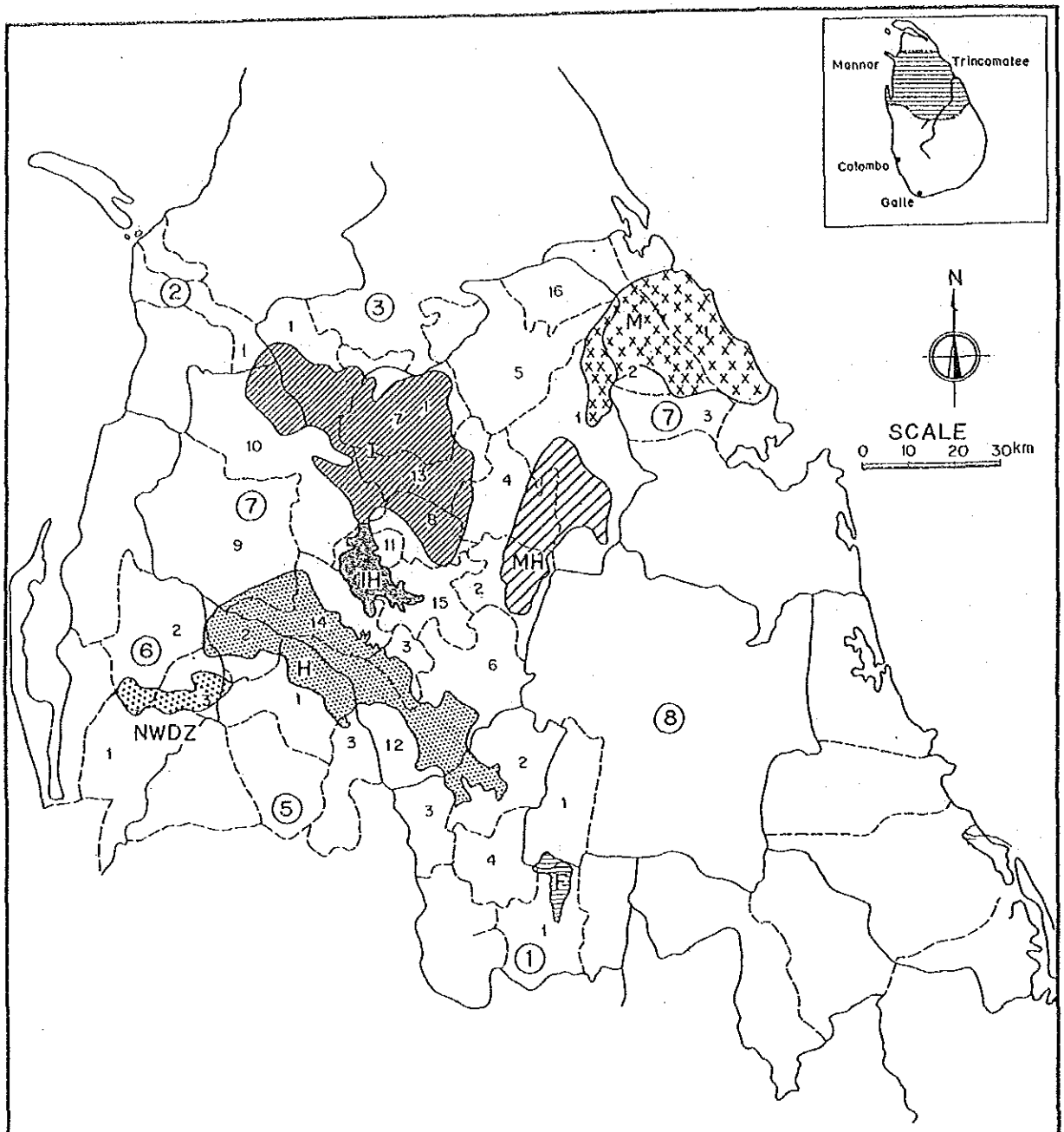
FIGURES


KEY MAP
Anuradhapura
Trincomalee
Kandy
Colombo
To Jaffna
Mankulam
Giant Tank
Vavuniya
Medawachchiya
Kantalai
Kaudulla
Kaudulla Tank
Kantalai Tank
Kantalai Sugar Factory
Kantalai Irrigation Area
Kantalai Irrigation Canal
Kantalai Irrigation Canal
Kantalai Irrigation Canal



1. Matale
   (1) Laggala
   (2) Dambulla
   (3) Gallewela
   (4) Naula
2. Mannar
   (1) Nanaddan
3. Vavuniya
   (1) Vengalacheddi Kulam
4. Trincomalee
   (1) Kuchchaweli
   (2) Gomarankadawala
   (3) Morawewa
5. Kurunegala
   (1) Galgamuwa
   (2) Giribawa
   (3) Polpithigama
6. Puttalam
   (1) Anamaduwa
   (2) Karuwalagaswewa
   (3) Kirimetiyawa
7. Anuradhapura
   (1) Horowpatana
   (2) Huruluwewa
   (3) Ipalogama
   (4) Kahatagasdigiliya
   (5) Kebithigollewa
   (6) Kekirawa
   (7) Medawachchiya
   (8) Mihintale
   (9) Nochchiyagama
   (10) Nuwaragampalata Central
   (11) Nuwaragampalata East
   (12) Palagola
   (13) Rambewa
   (14) Talawa
   (15) Thirappane
   (16) Padawiya
8. Polonnaruwa
   (1) Elahera

LEGEND
- System F
- System H
- System I H
- System I
- System M
- System MH
- System NWDZ

Fig. 2 Administrative Division in the Study Area: 1981

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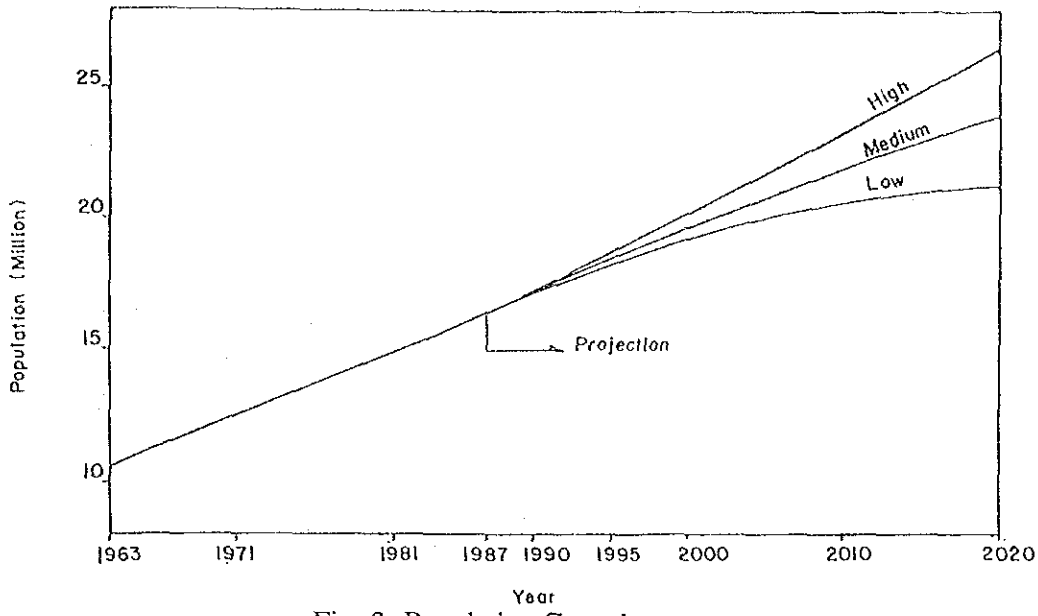


Fig. 3 Population Growth

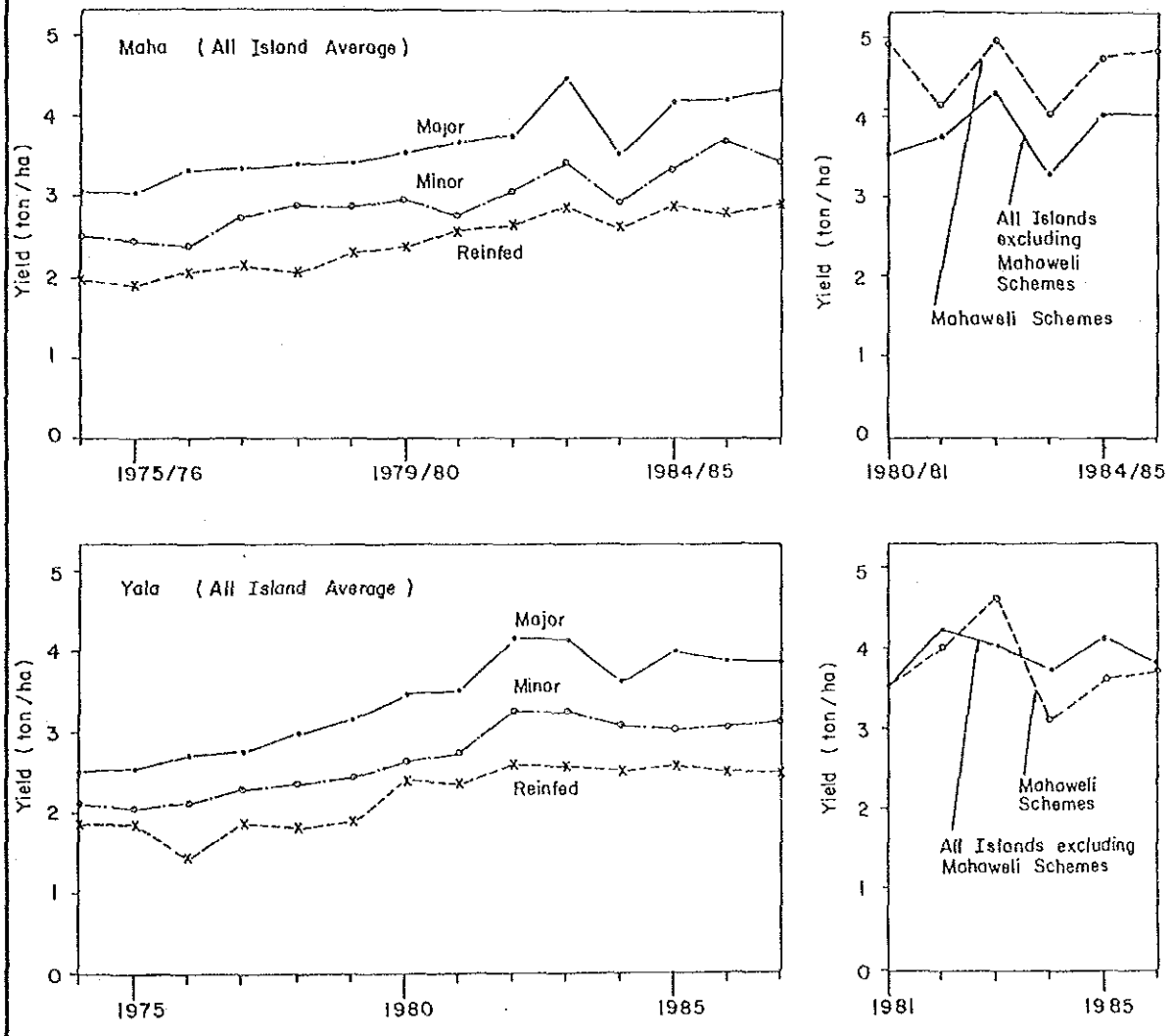


Fig. 4 Trend of Average Paddy Yield by Scheme in Sri Lanka: 1974-1987

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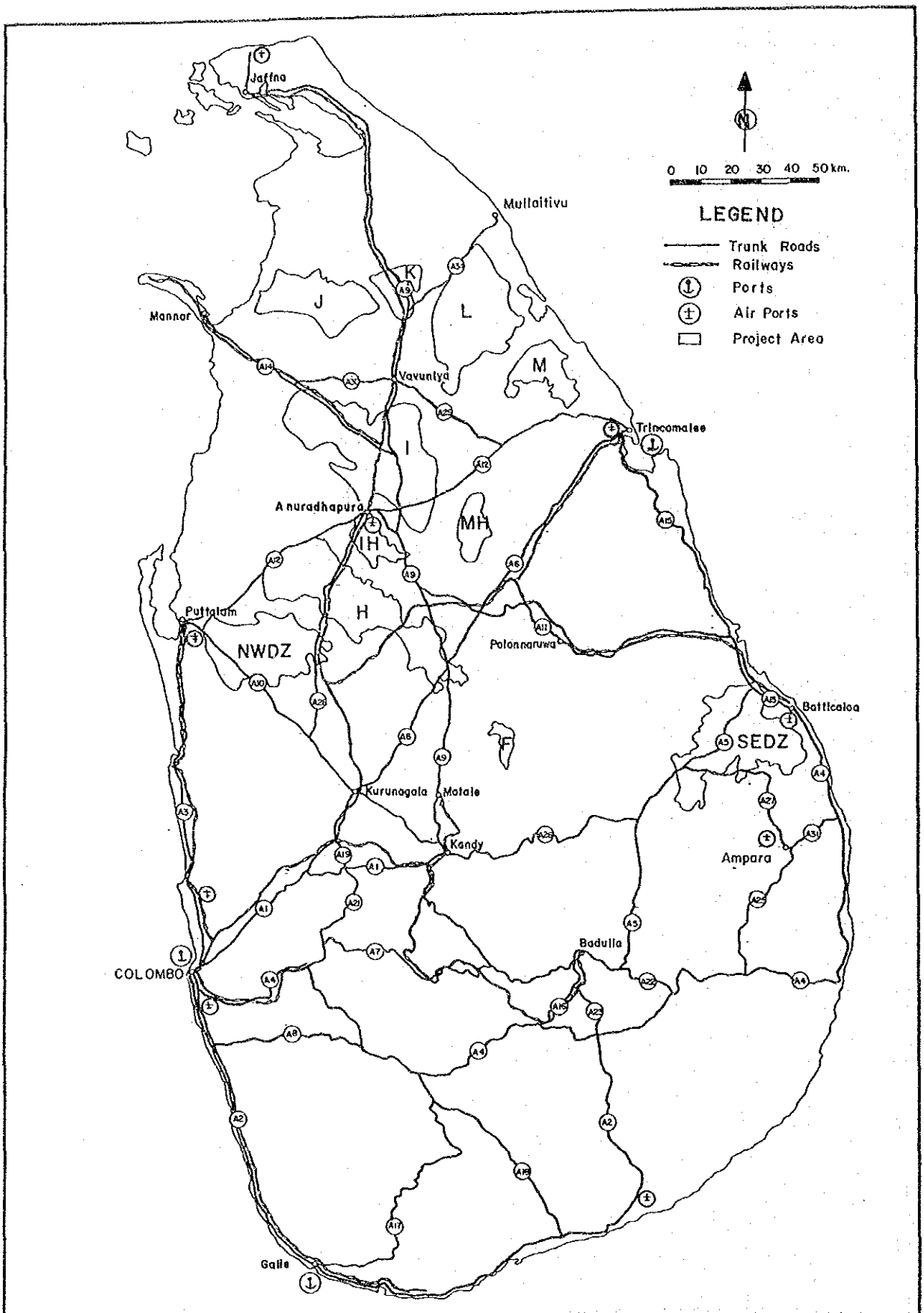


Fig. 5 Transportation Network

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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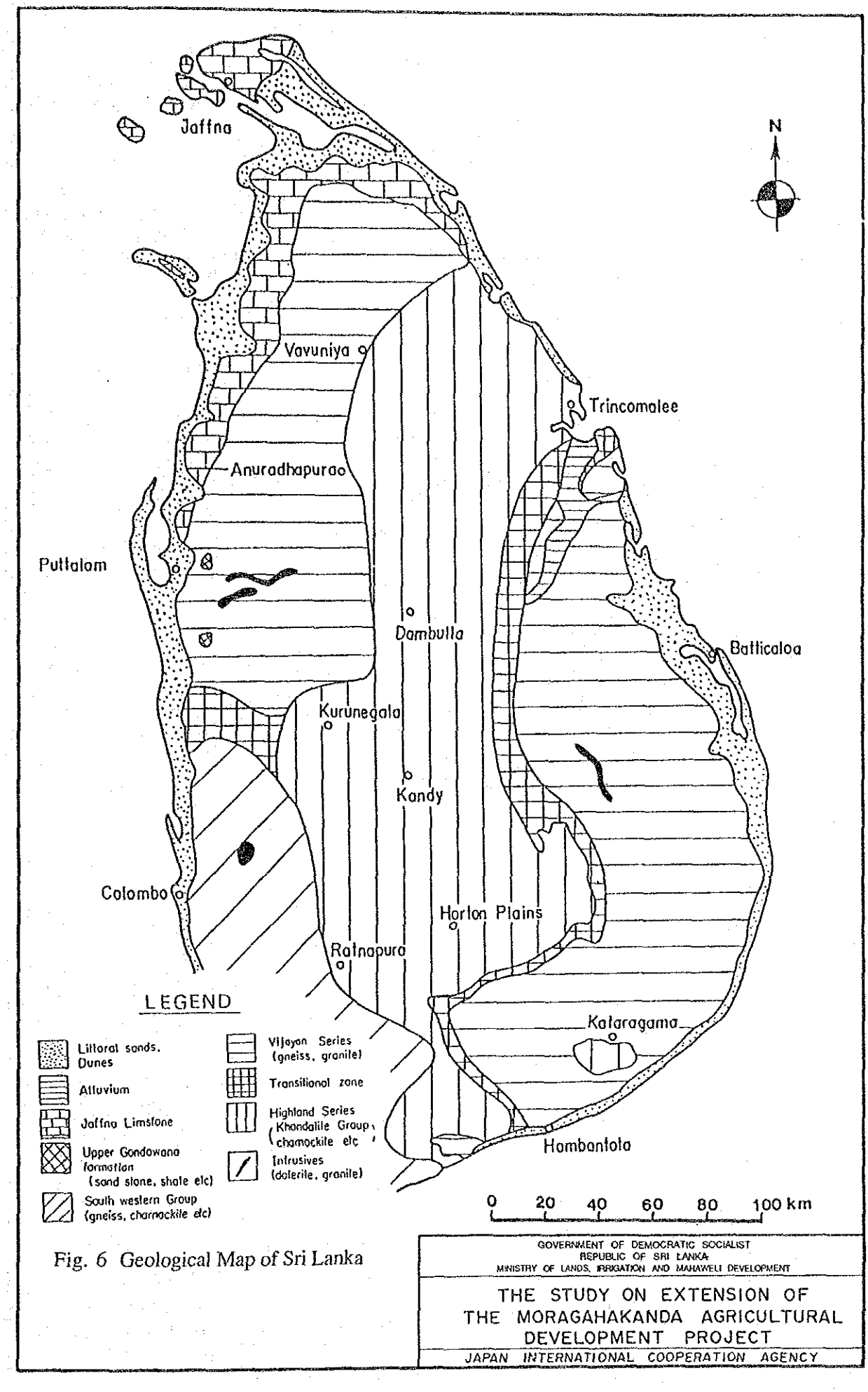


Fig. 6 Geological Map of Sri Lanka

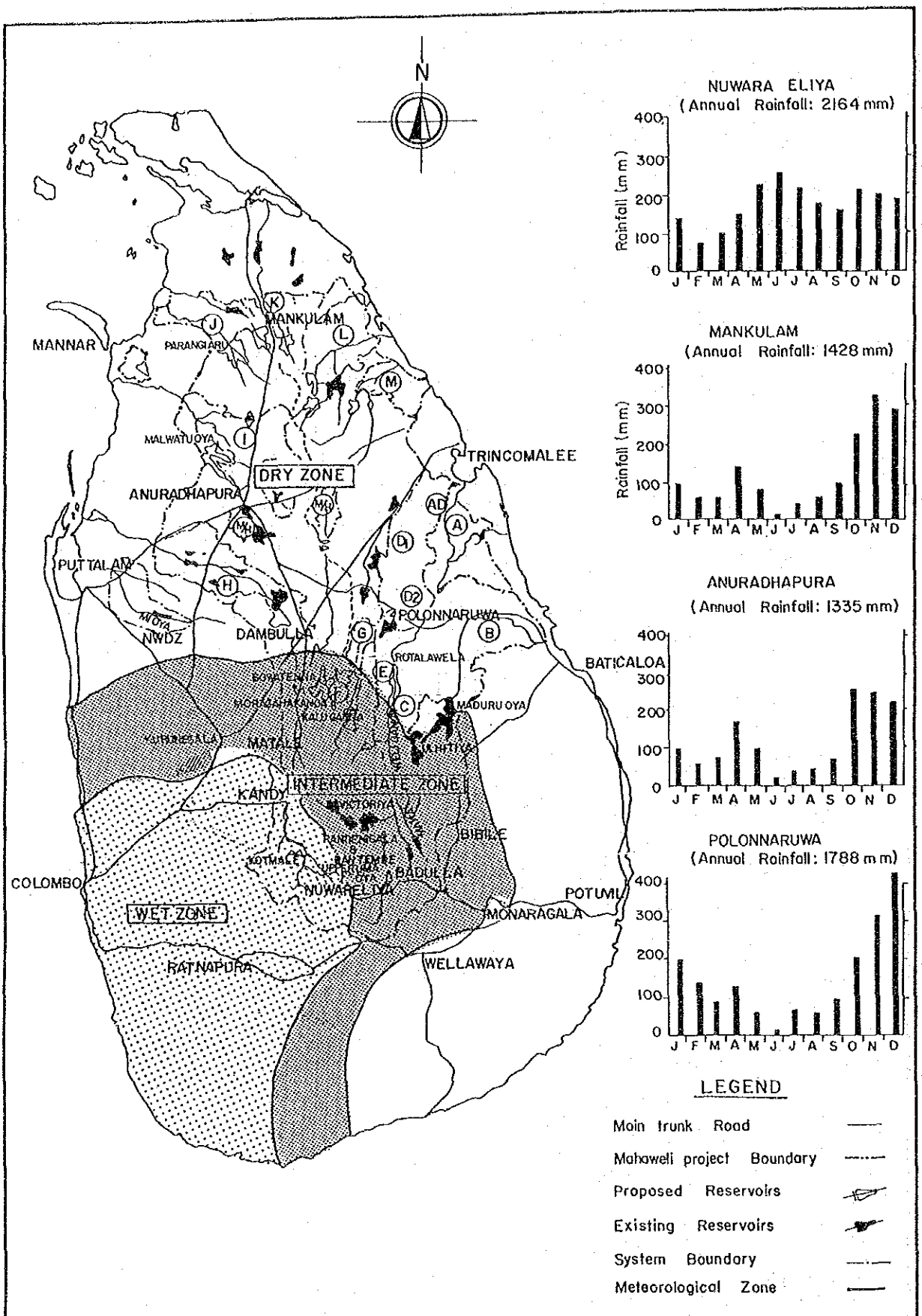
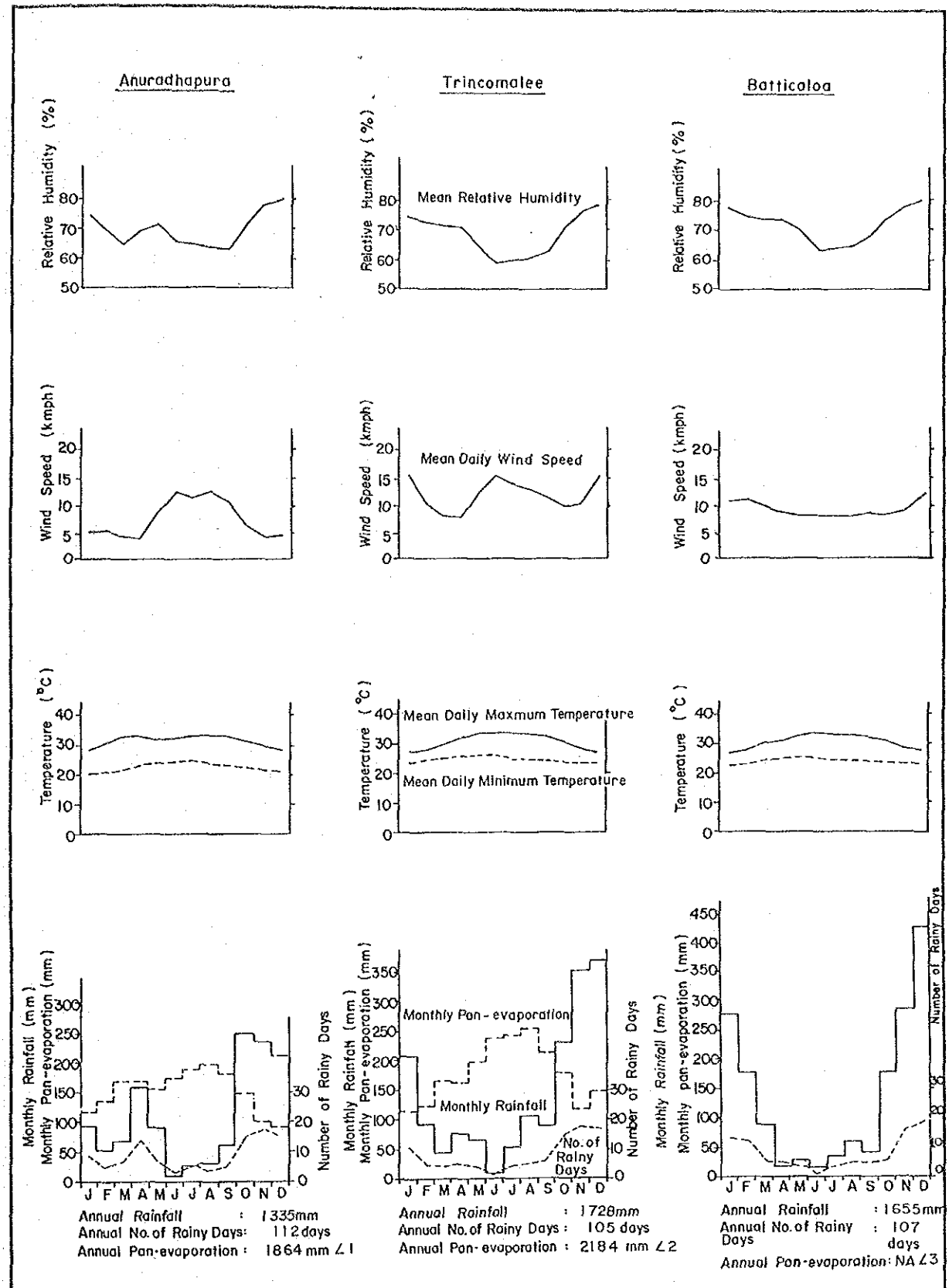


Fig. 7 Meteorological Zone in Sri Lanka and Average Monthly Rainfall in the Study Area

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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Remarks: <1 Data at Maha Illuppallama
<2 Data at Kantalai
<3 No data available

Fig. 8 Mean Annual Climatological Pattern in the Study Area

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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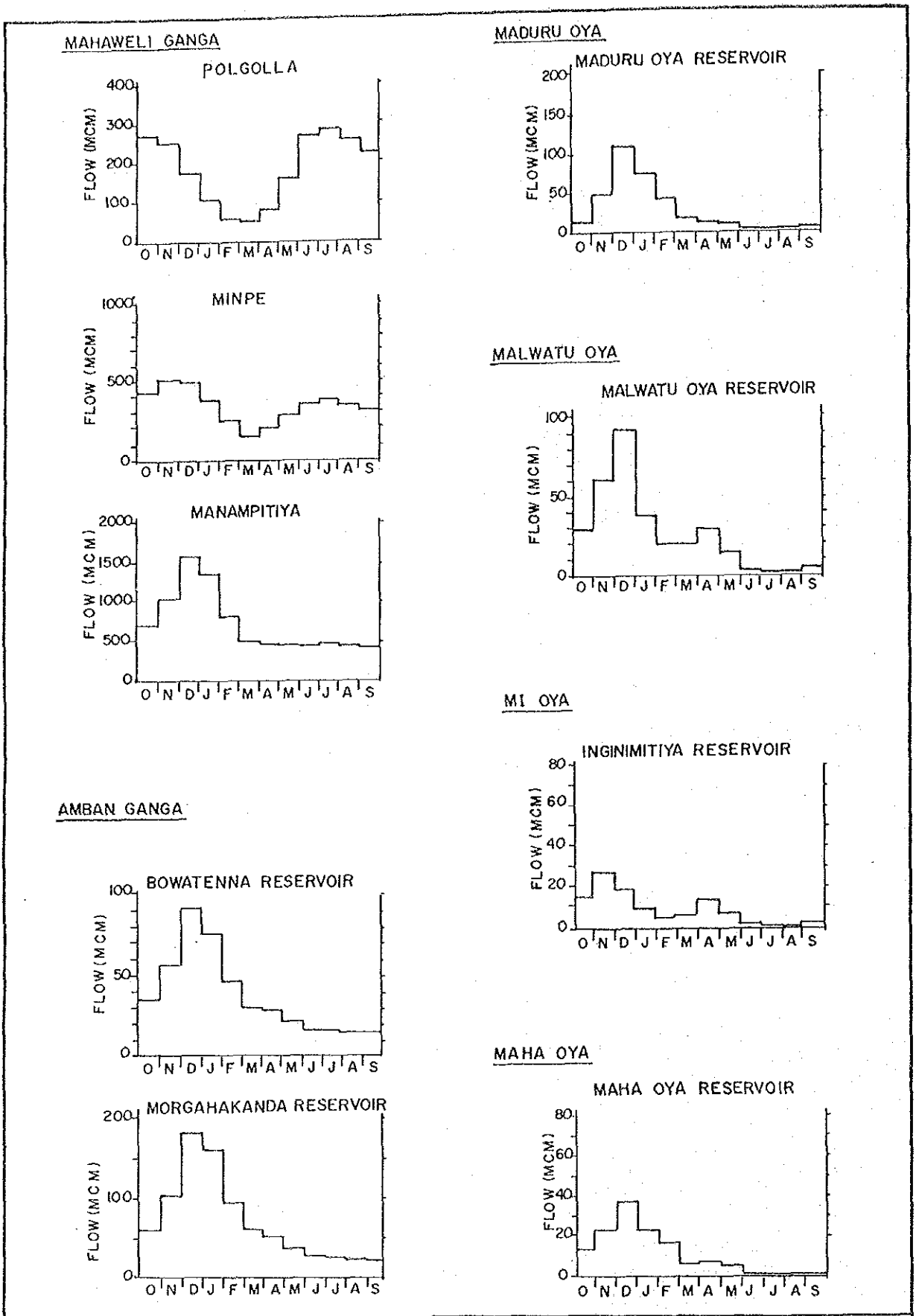


Fig. 9 Average Monthly Flow in the Study Area

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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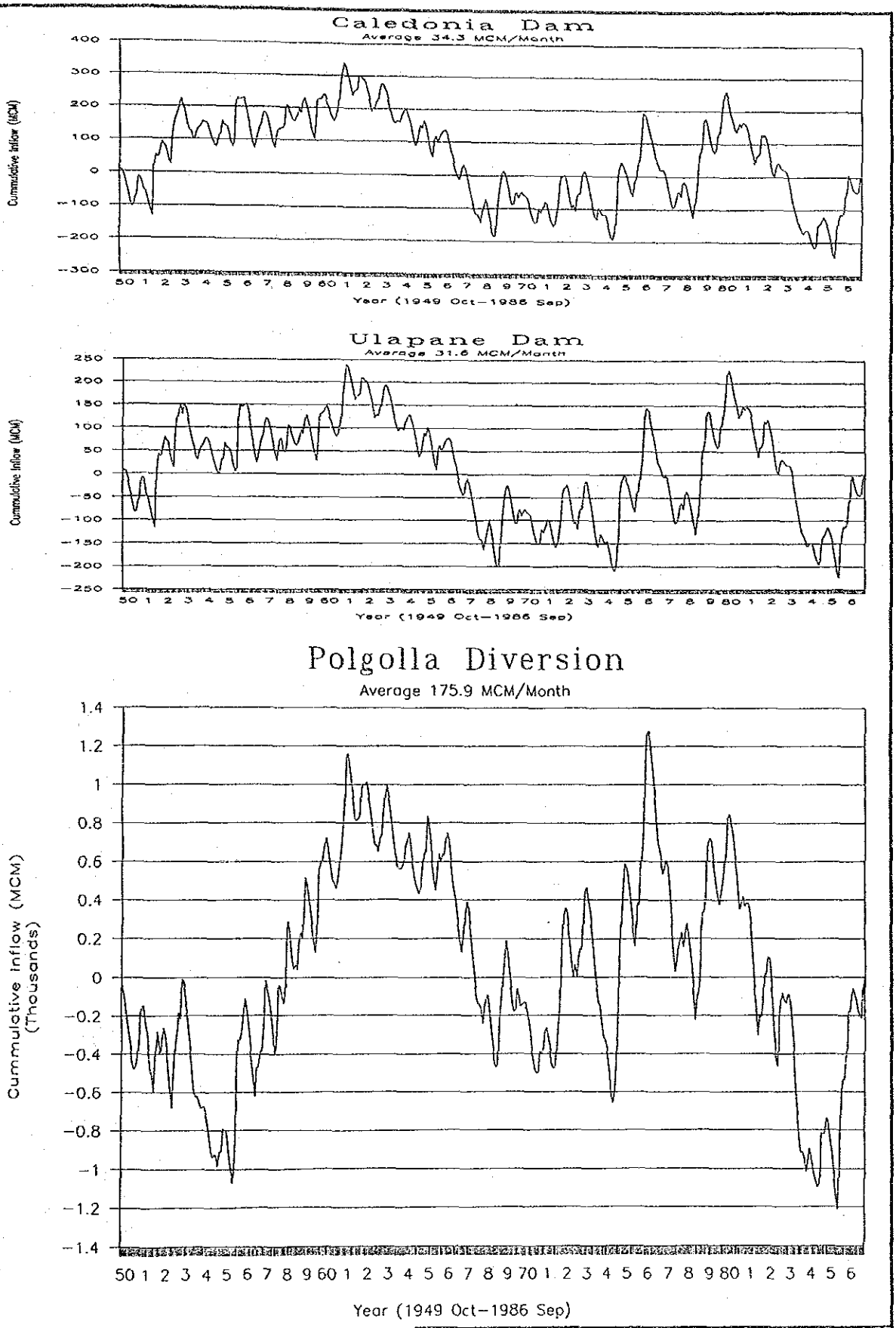
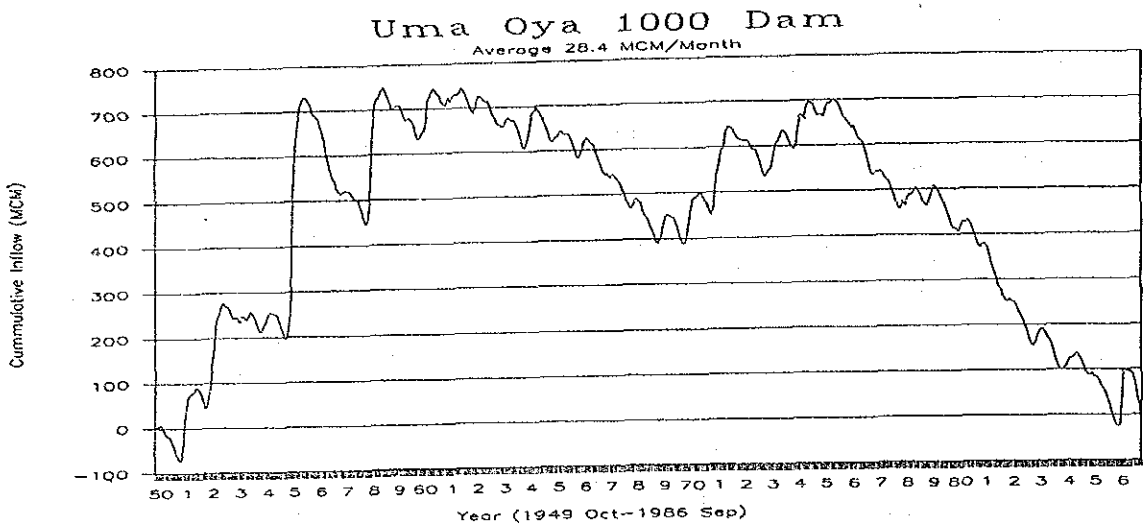


Fig. 10 Masscurve at Major Damsite (1/3)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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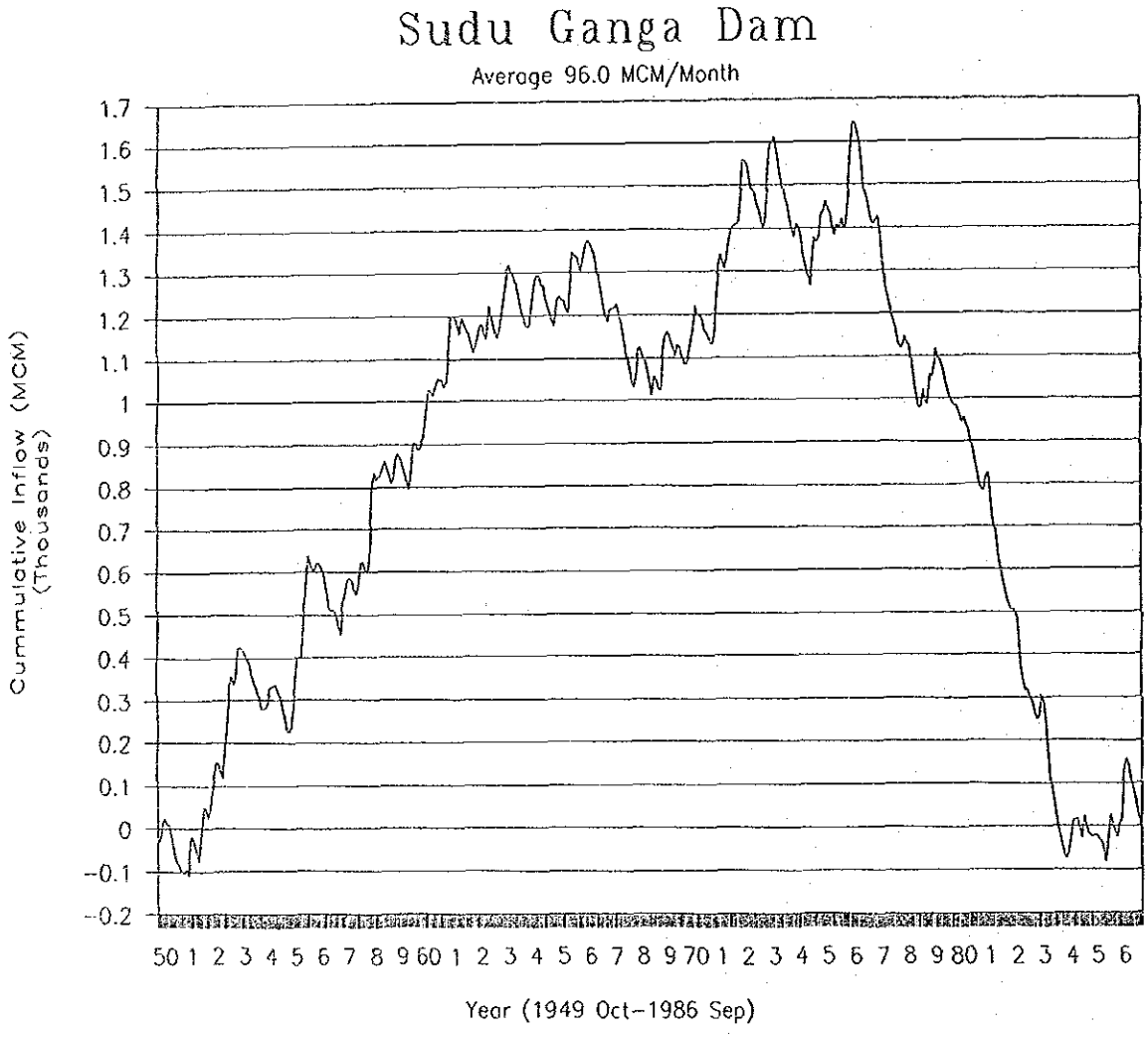
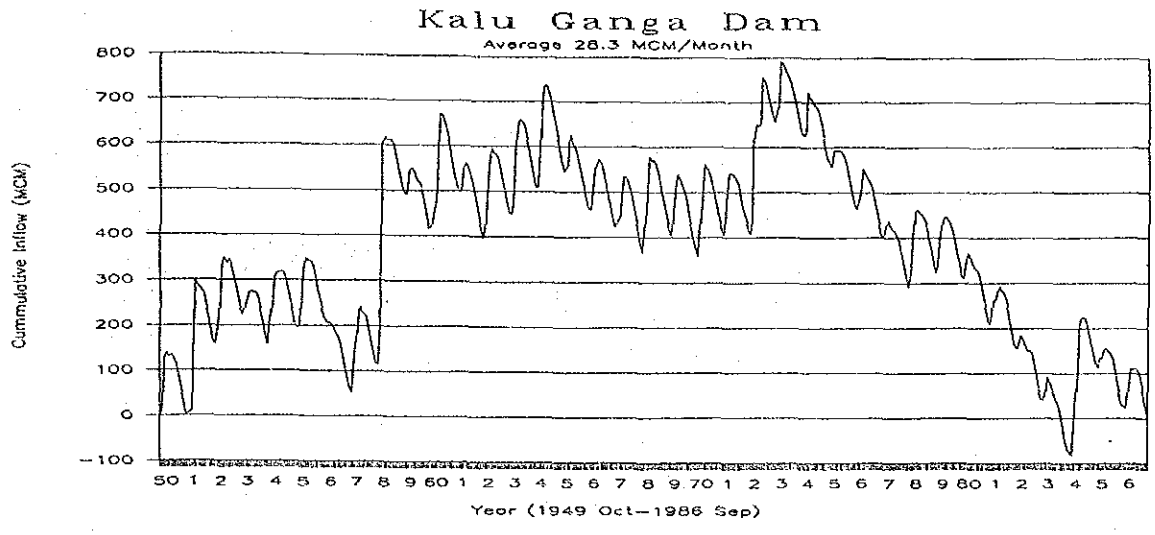


Fig. 10 Masscurve at Major Damsite (2/3)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF LANDS, IRRIGATION AND MAHAWELI DEVELOPMENT
THE STUDY ON EXTENSION OF THE MORAGAHAKANDA AGRICULTURAL DEVELOPMENT PROJECT
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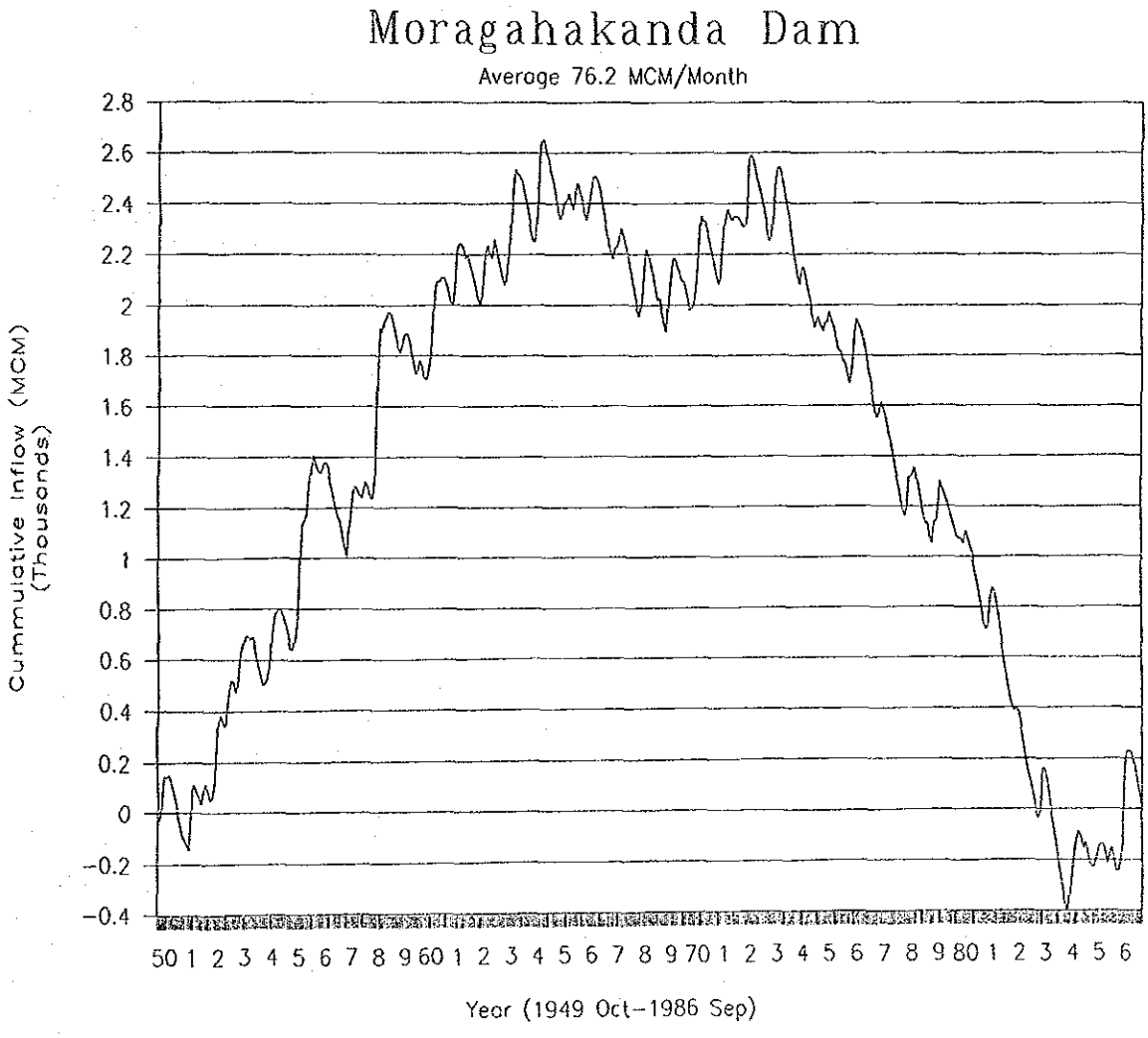
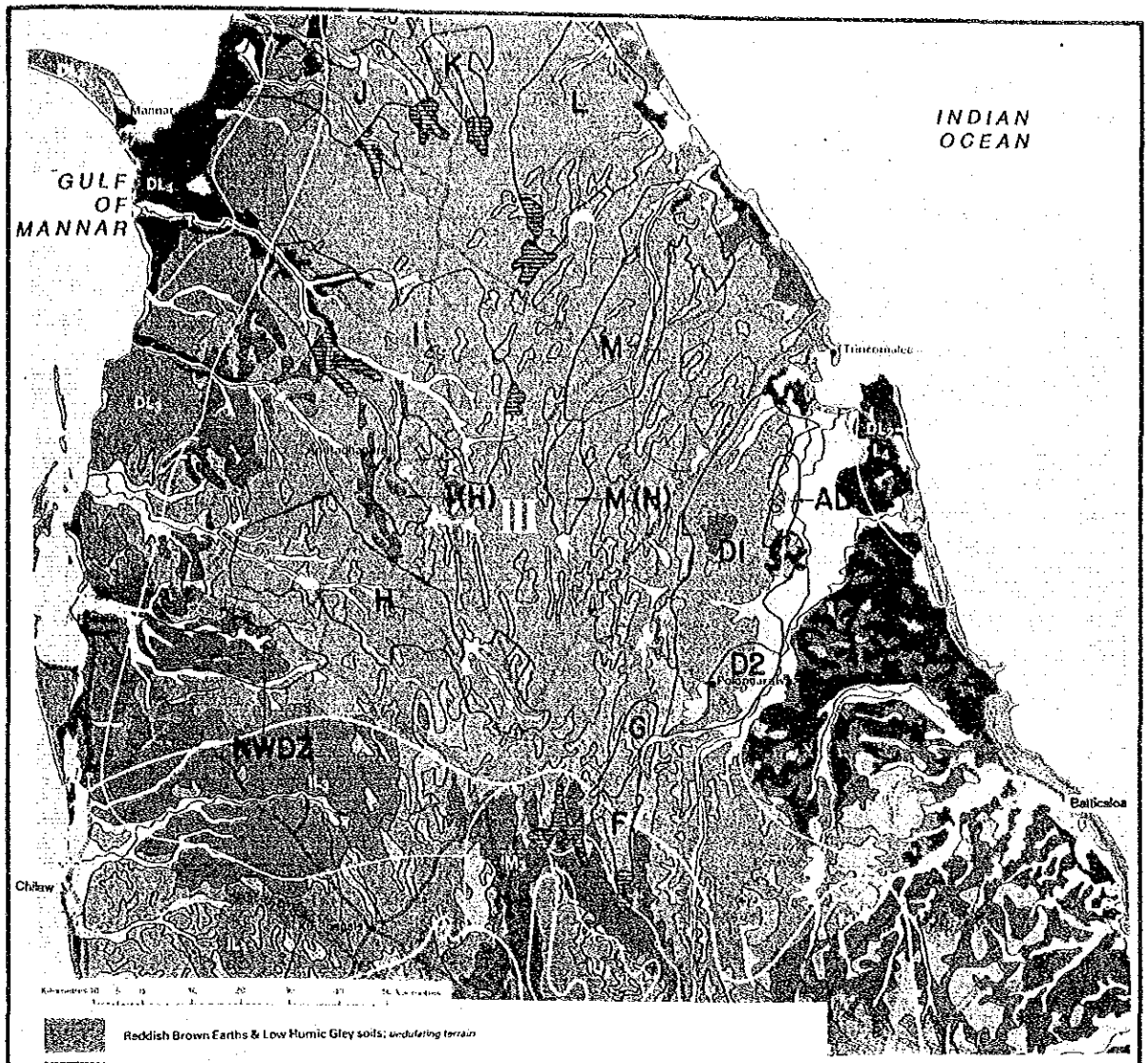


Fig. 10 Masscurve at Major Damsite (3/3)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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Reddish Brown Earths & Low Humic Gley soils; *undulating terrain*

Reddish Brown Earths with moderate amount of gravel in subsoil & Low Humic Gley soils; *undulating terrain*

Reddish Brown Earths with high amount of gravel in subsoil & Low Humic Gley soils; *undulating terrain*

Reddish Brown Earths & Solodized Solonetz; *undulating terrain*

Reddish Brown Earths, Noncalcic Brown soils & Low Humic Gley soils; *undulating terrain*

Reddish Brown Earths & Immature Brown Loams; *rolling hilly and steep terrain*

Noncalcic Brown soils & Low Humic Gley soils; *undulating terrain*

Noncalcic Brown soils, soils on old alluvium & Solodized Solonetz; *undulating terrain*

Red-Yellow Latosols; *flat to slightly undulating terrain*

Calcic Red-Yellow Latosols; *flat terrain*

Solodized Solonetz and Solonchaks; *flat terrain*

Grumusols; *flat terrain*

Soils on recent marine calcareous sediments; *flat terrain*

Red-Yellow Podzolic soils with soft or hard laterite; *rolling and undulating terrain*

Red-Yellow Podzolic soils with dark B horizon & Red-Yellow Podzolic soils with prominent A1 horizon; *rolling terrain*

Red-Yellow Podzolic soils with semi-prominent A1 horizon; *hilly and rolling terrain*

Reddish Brown Latosolic soils; *steeply dissected, hilly and rolling terrain*

Immature Brown Loams; *steeply dissected, hilly and rolling terrain*

Bog and Half-bog soils; flat terrain

Latosols and Regosols on old red and yellow sands; *flat terrain*

Miscellaneous land units comprising of Rock Knob Plains, Erosional remnants with eroded and shallow soils

Alluvial soils of variable drainage and texture; *flat terrain*

Regosols on Recent beach and dune sands; *flat terrain*

Red-Yellow Podzolic soils & Mountain Regosols, *mountainous terrain*

Red-Yellow Podzolic soils; *steeply dissected, hilly and rolling terrain*

Red-Yellow Podzolic soils with strongly mottled subsoil & Low Humic Gley soils; *rolling and undulating terrain*

Fig. 11 National Soil Classification Map

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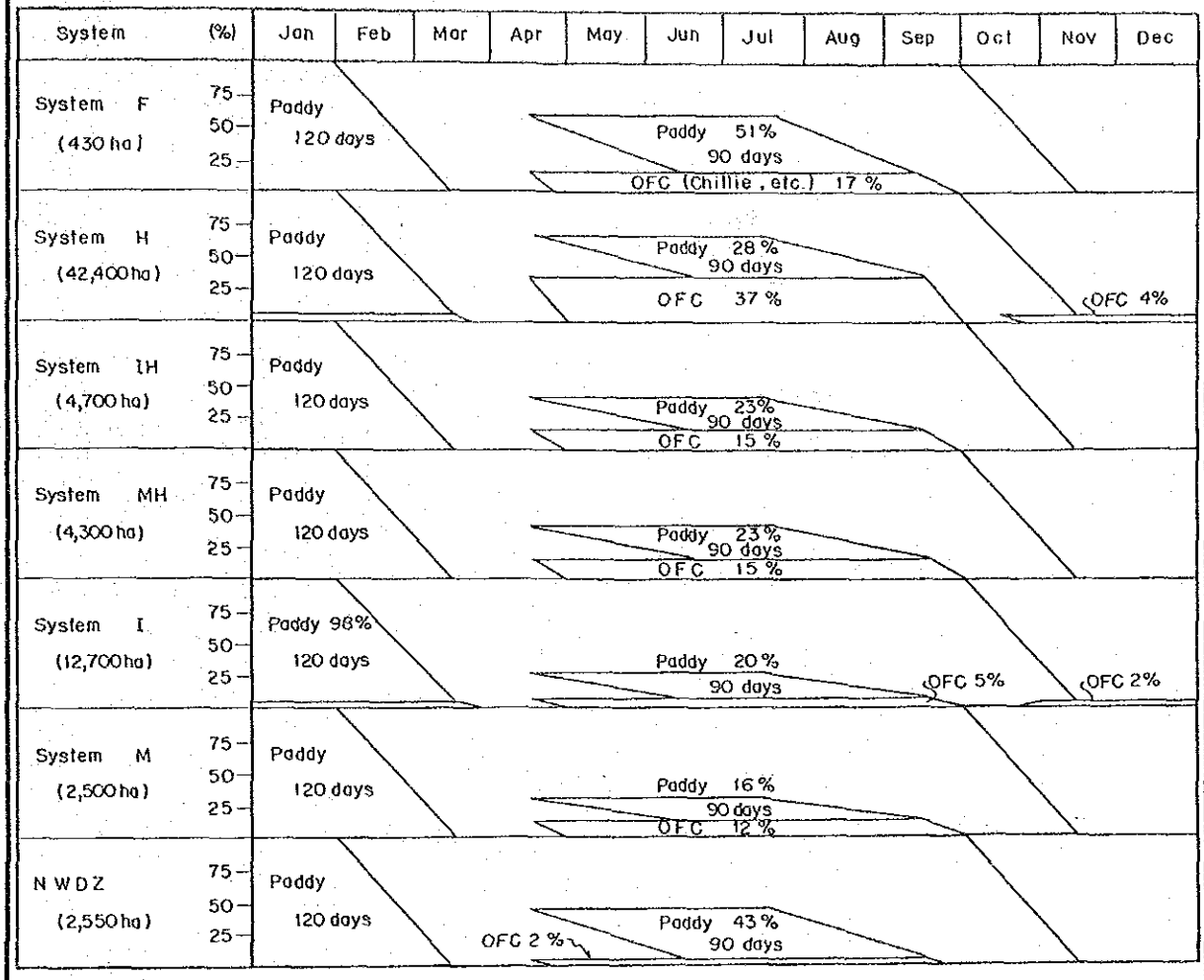


Fig. 12 Present Cropping Pattern in Irrigated Field

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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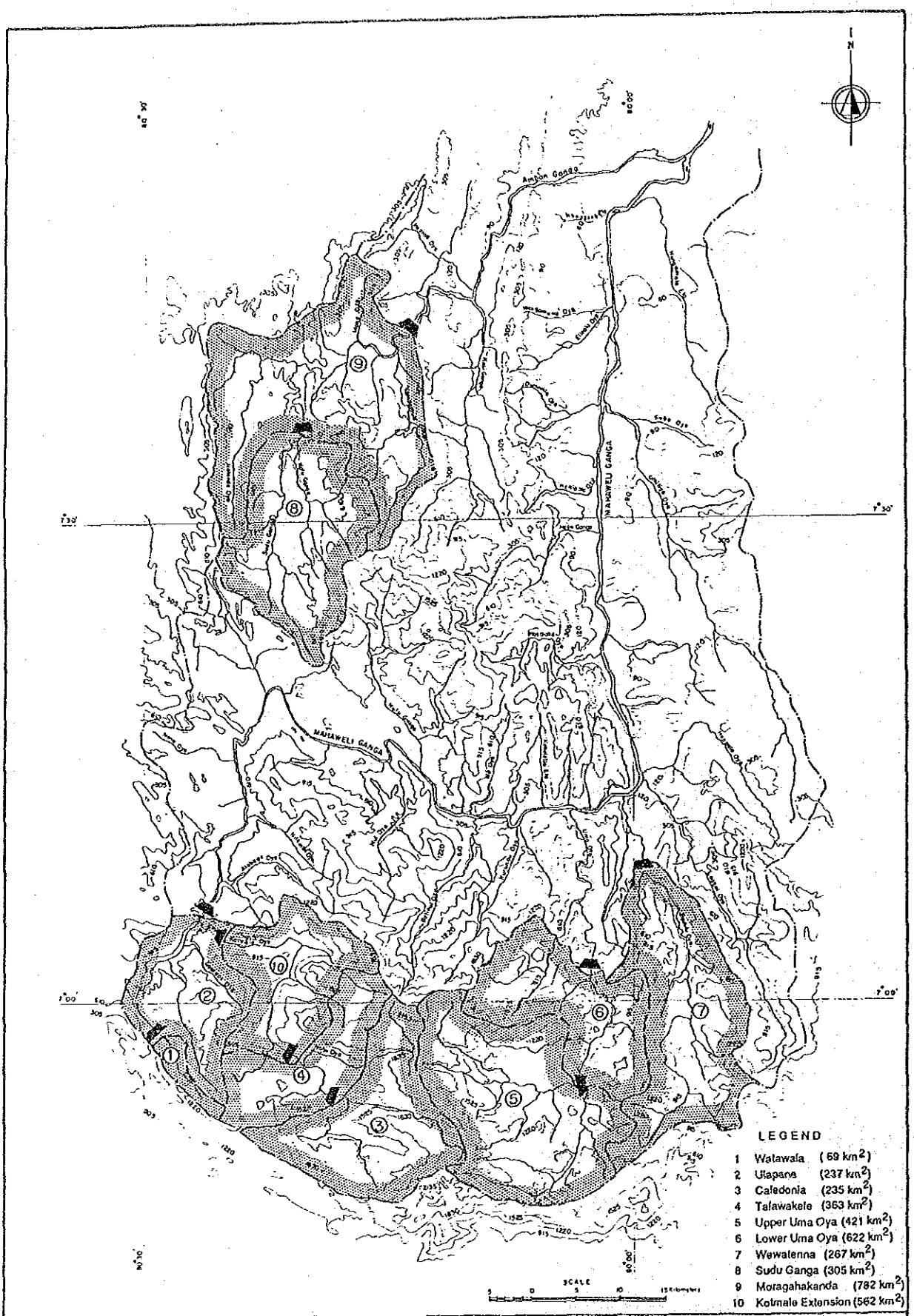
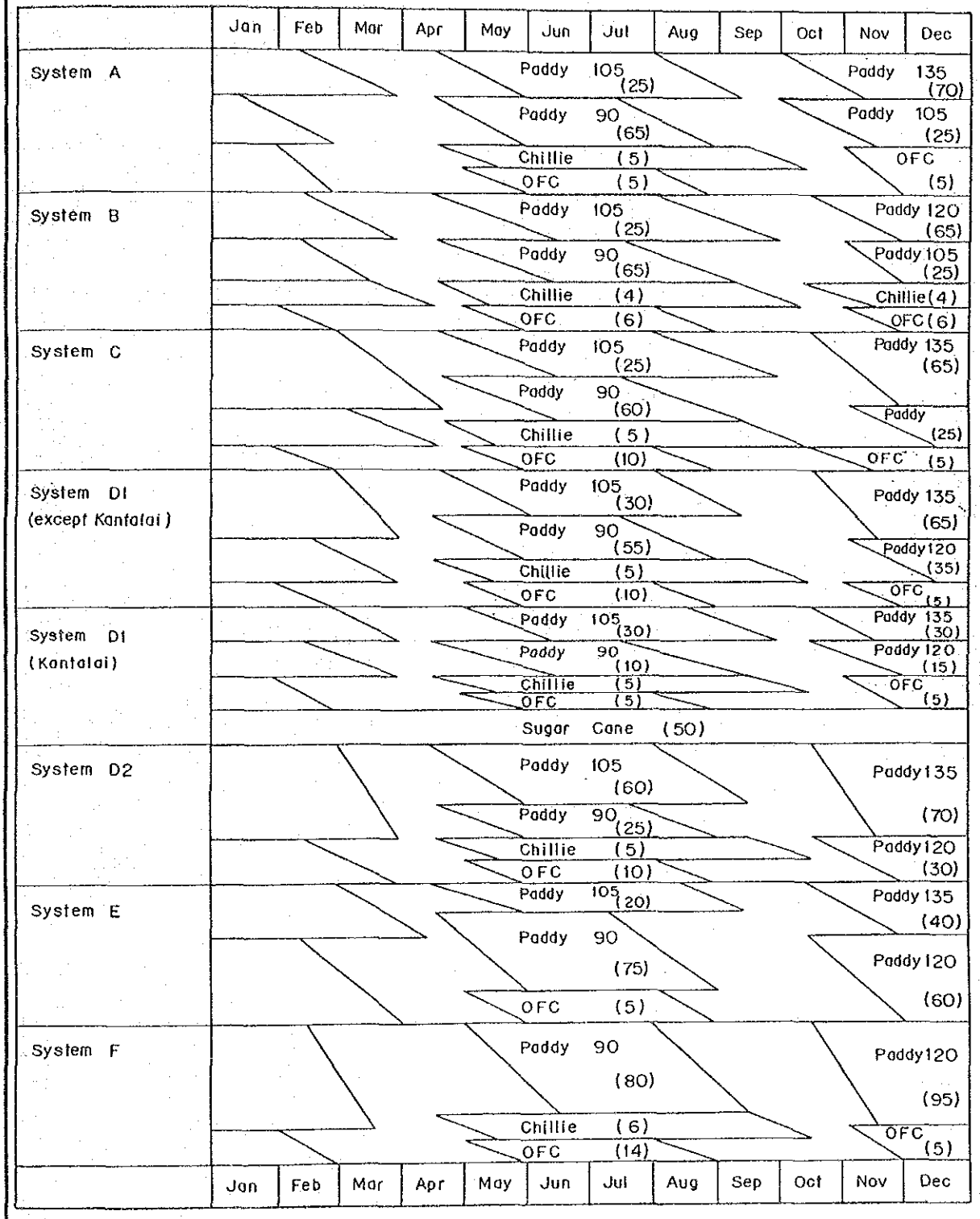


Fig. 13 Catchment Boundary for Candidate Hydropower Schemes

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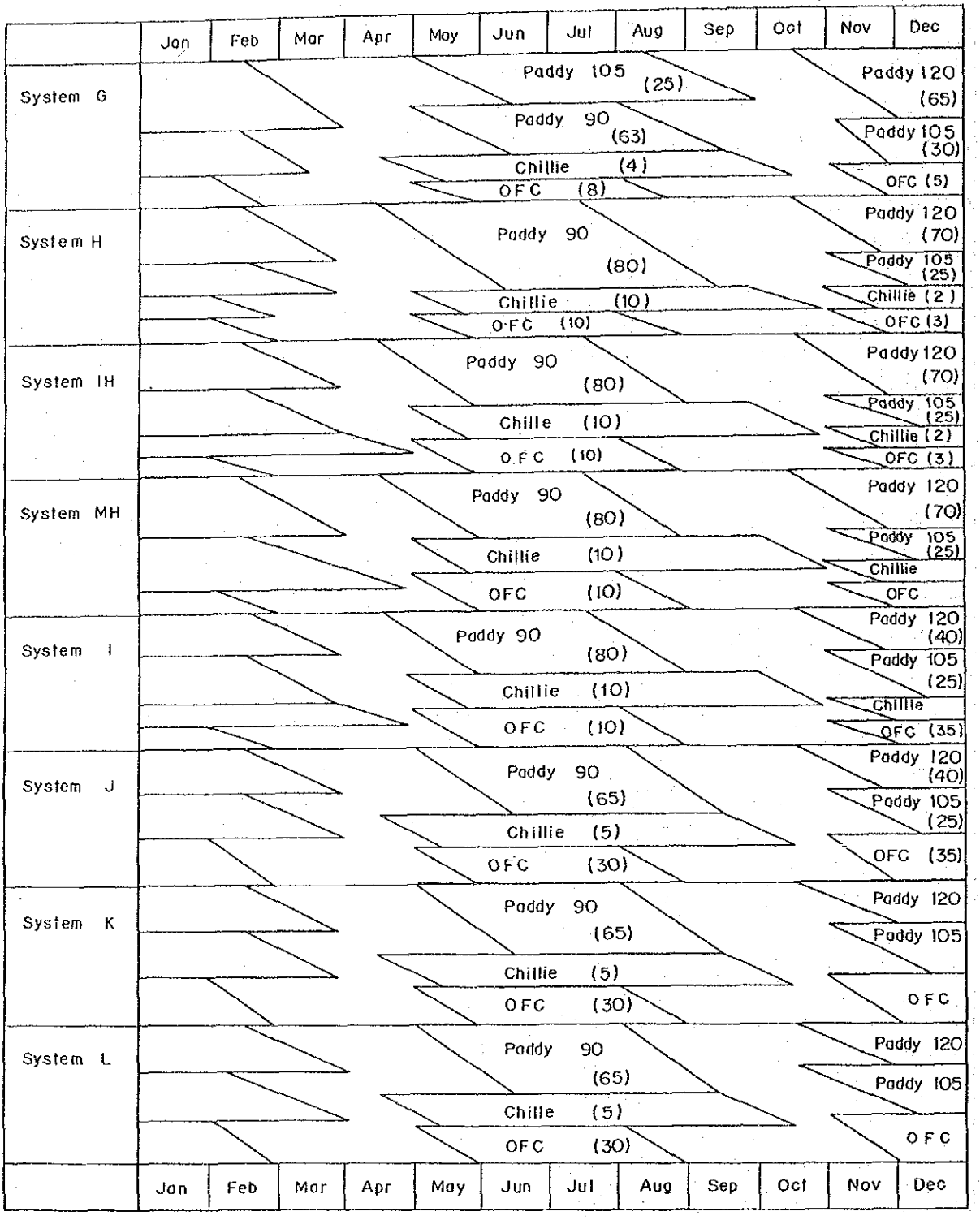
Remarks : OFC = Other Field Crops
Crop intensity (%) shown in brackets

Fig. 14 Proposed Cropping Pattern (1/3)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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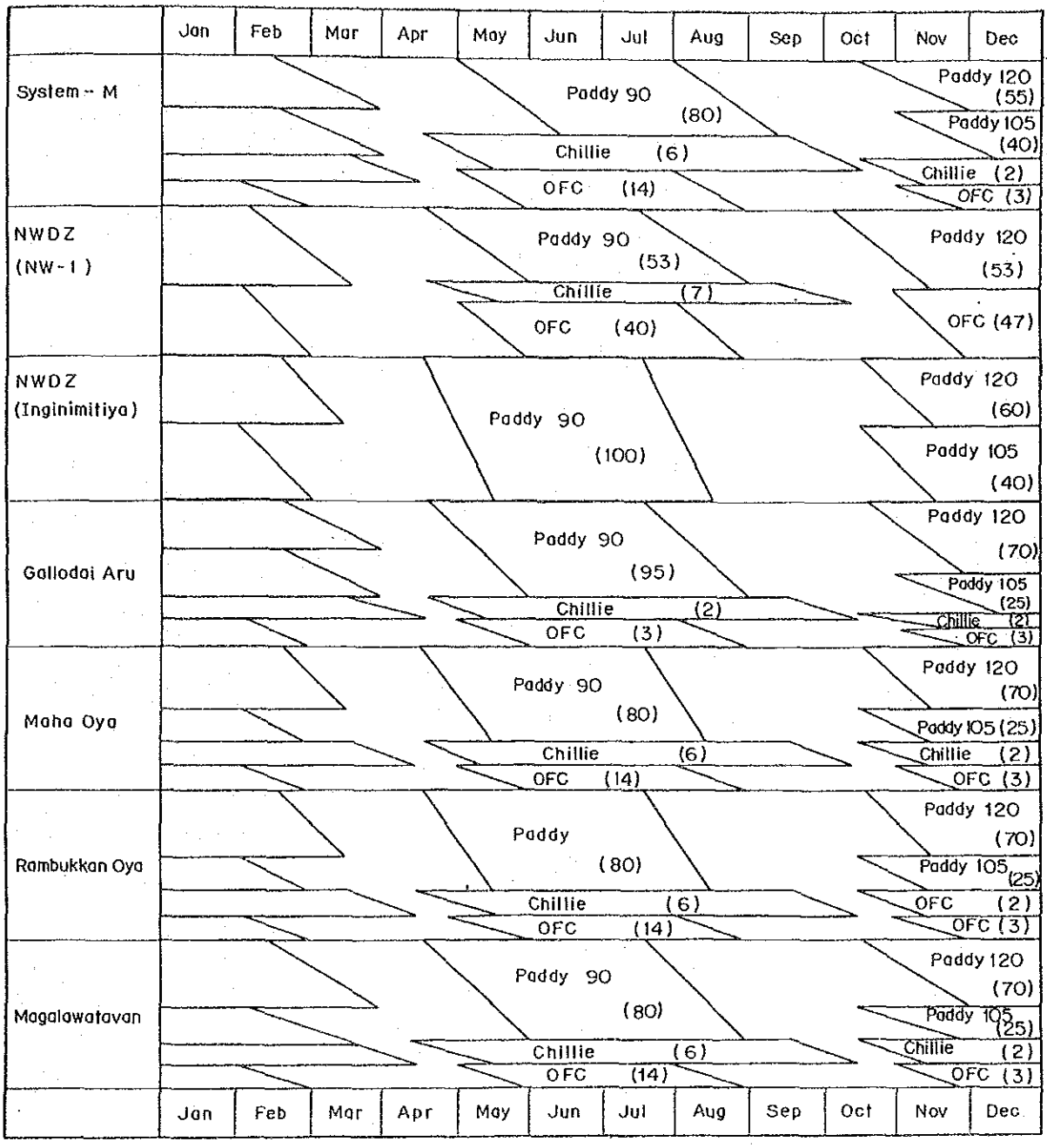
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Crop intensity (%) shown in brackets

Fig. 14 Proposed Cropping Pattern (2/3)

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Remarks : OFC = Other Field Crops
Crop intensity (%) shown in brackets

Fig. 14 Proposed Cropping Pattern (3/3)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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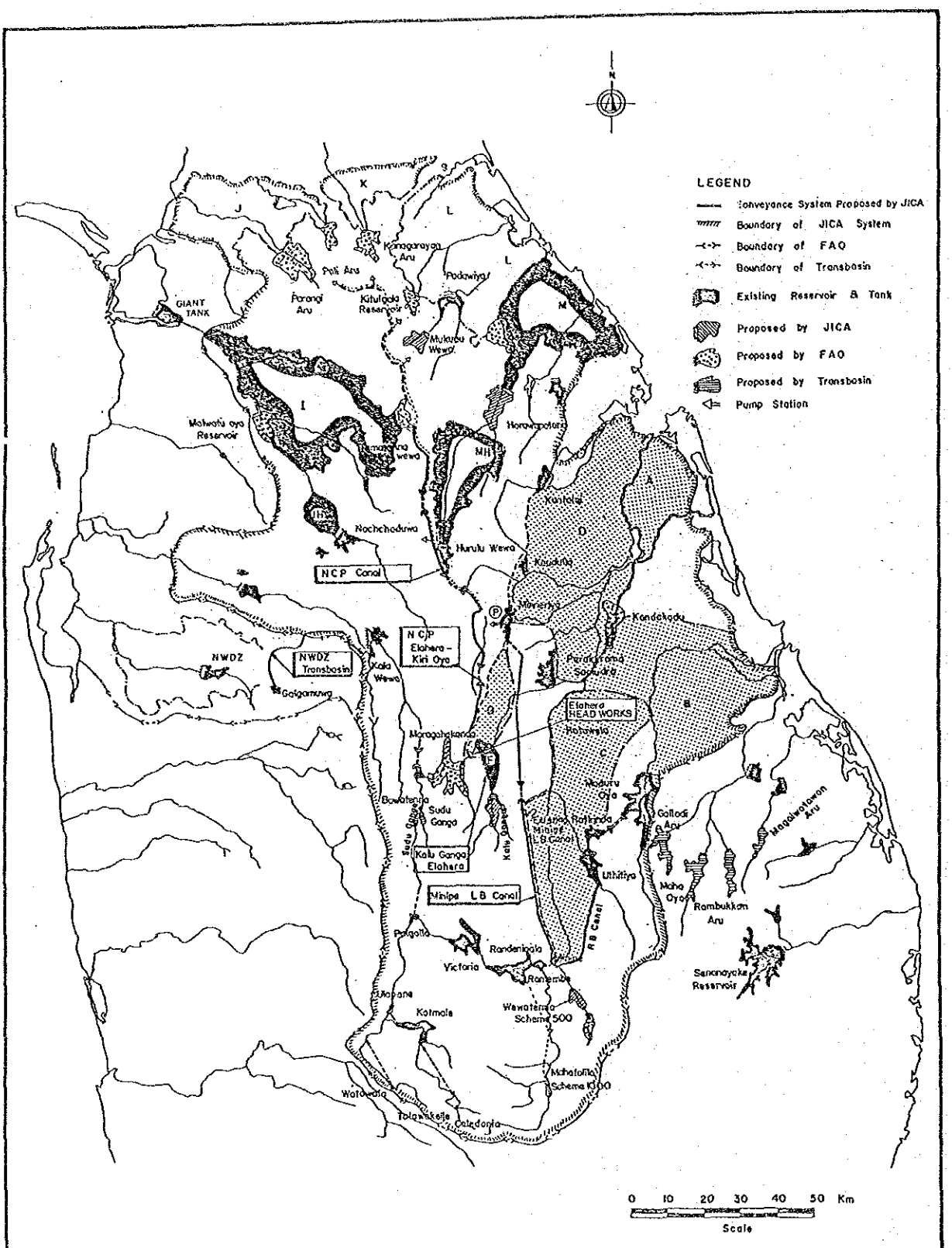


Fig. 15 Transbasin Conveyance System (1/3)

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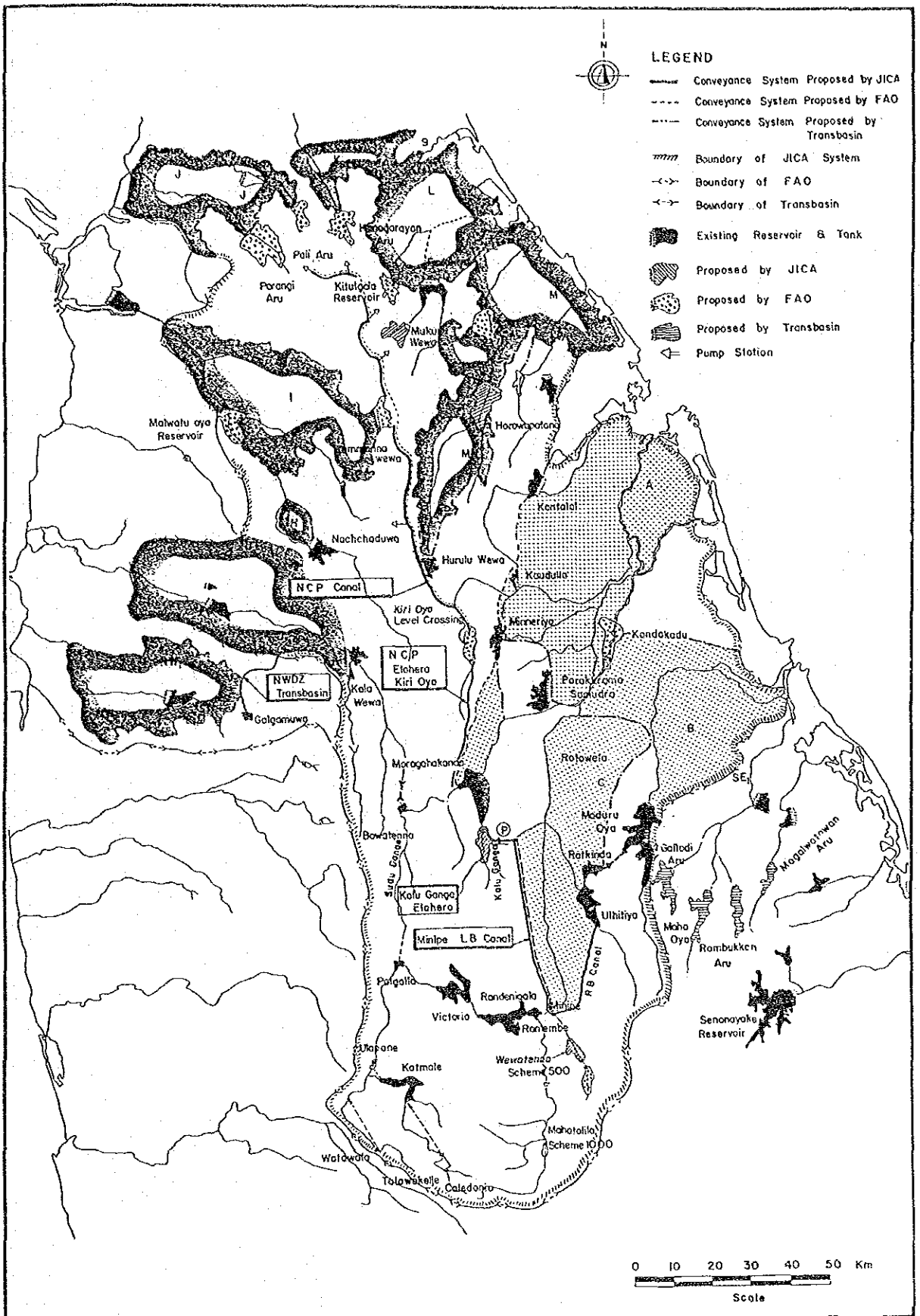


Fig. 15 Transbasin Conveyance System (2/3)

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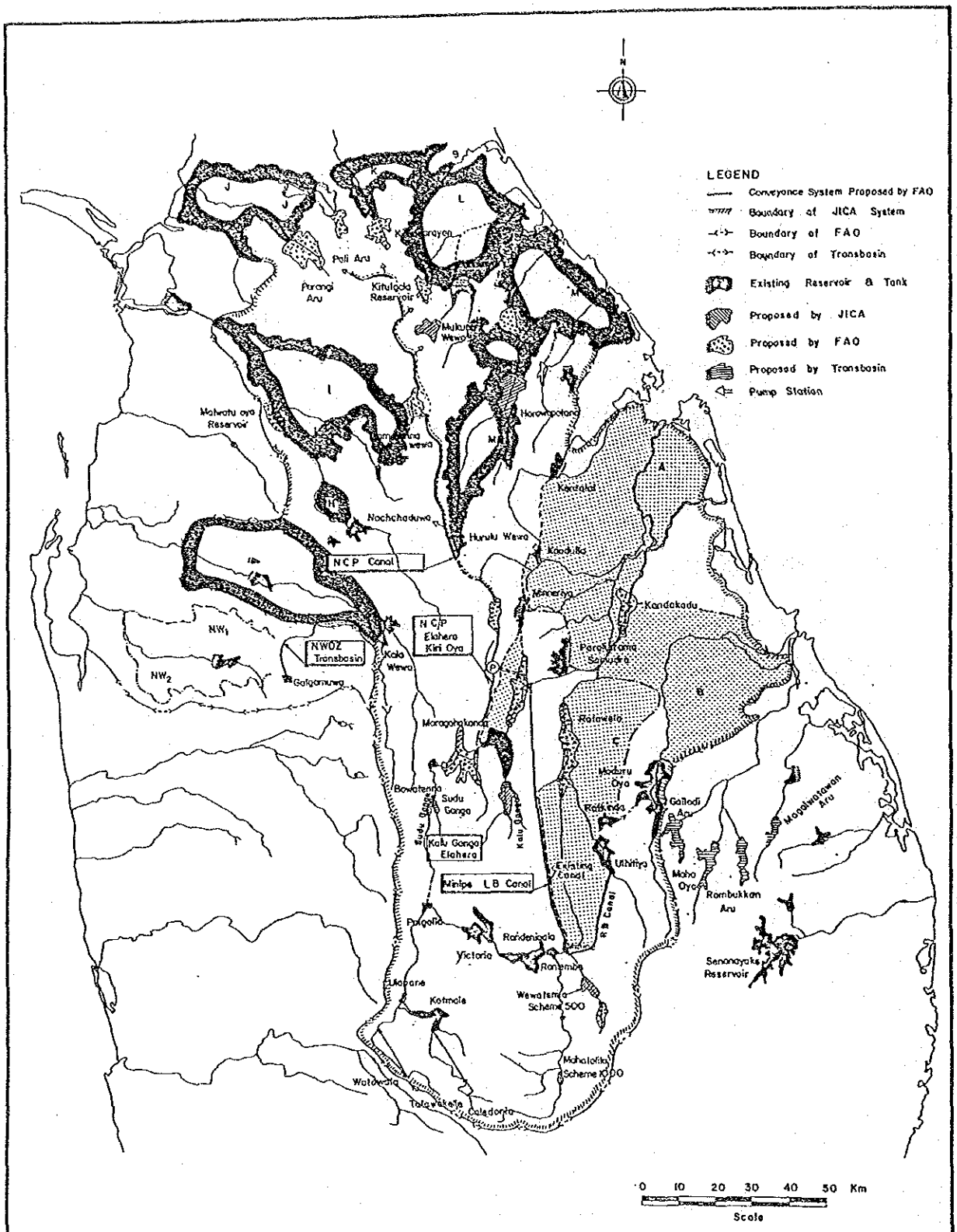


Fig. 15 Transbasin Conveyance System (3/3)

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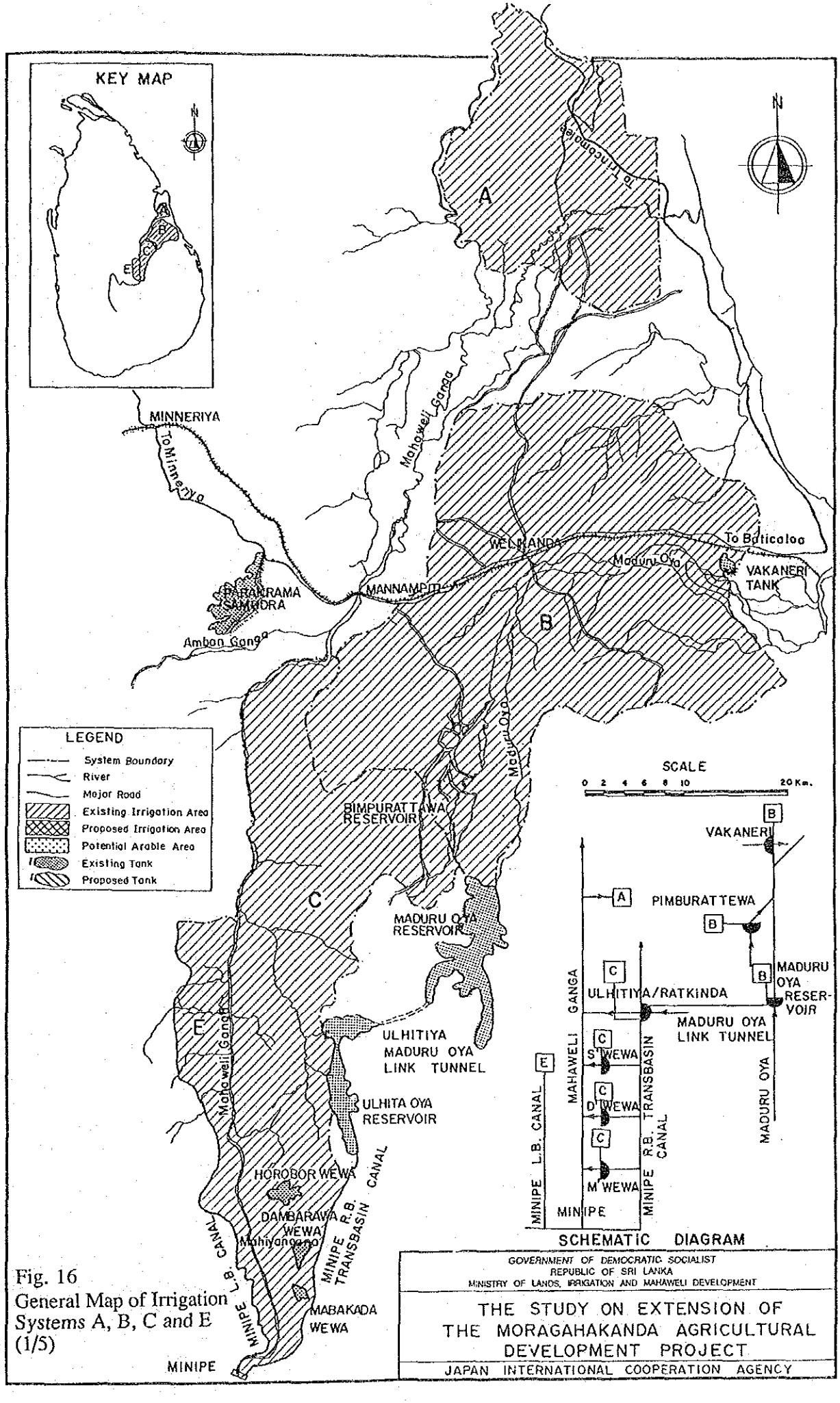


Fig. 16
General Map of Irrigation Systems A, B, C and E (1/5)

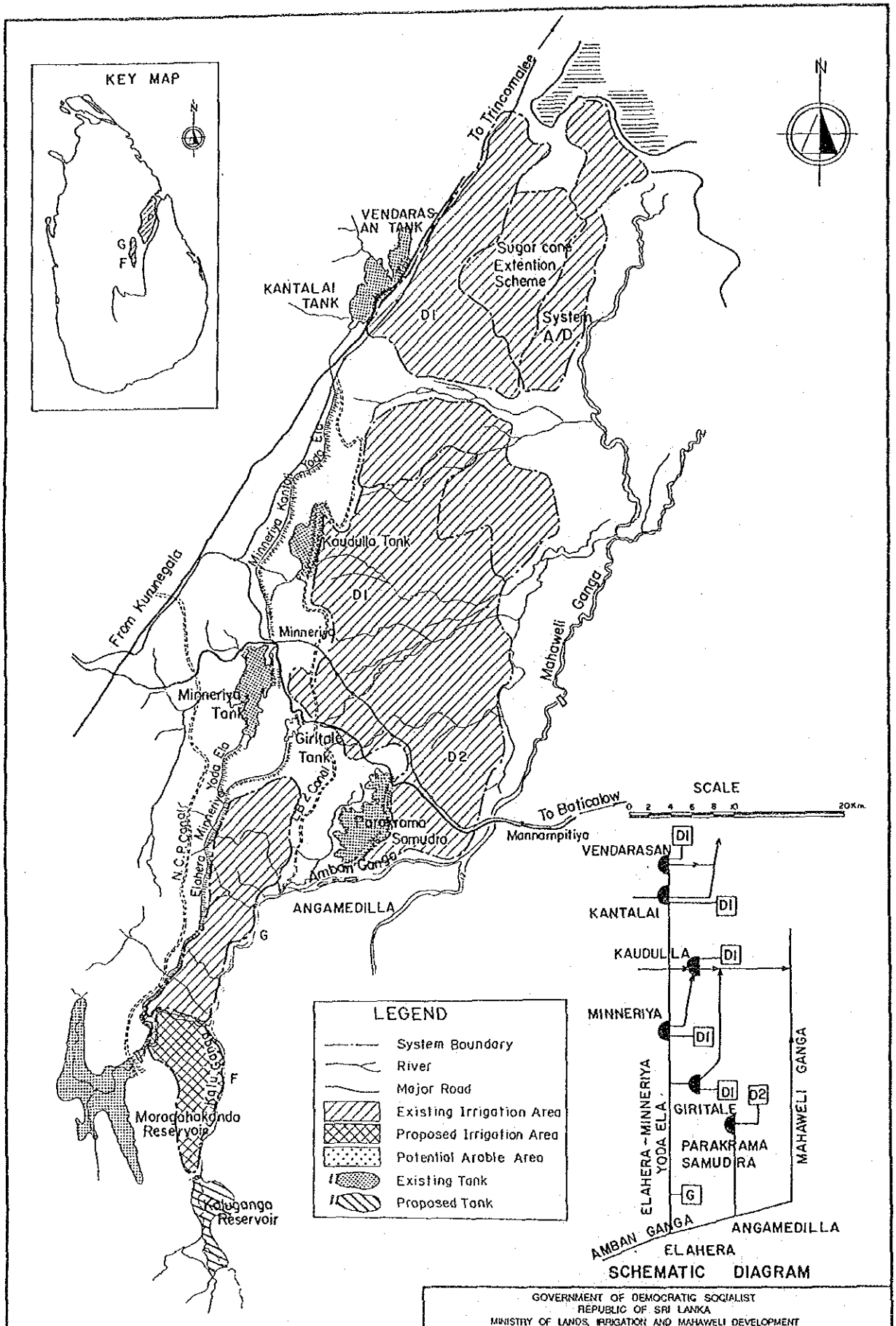


Fig. 16 General Map of Irrigation Systems D1, D2, F and G (2/5)

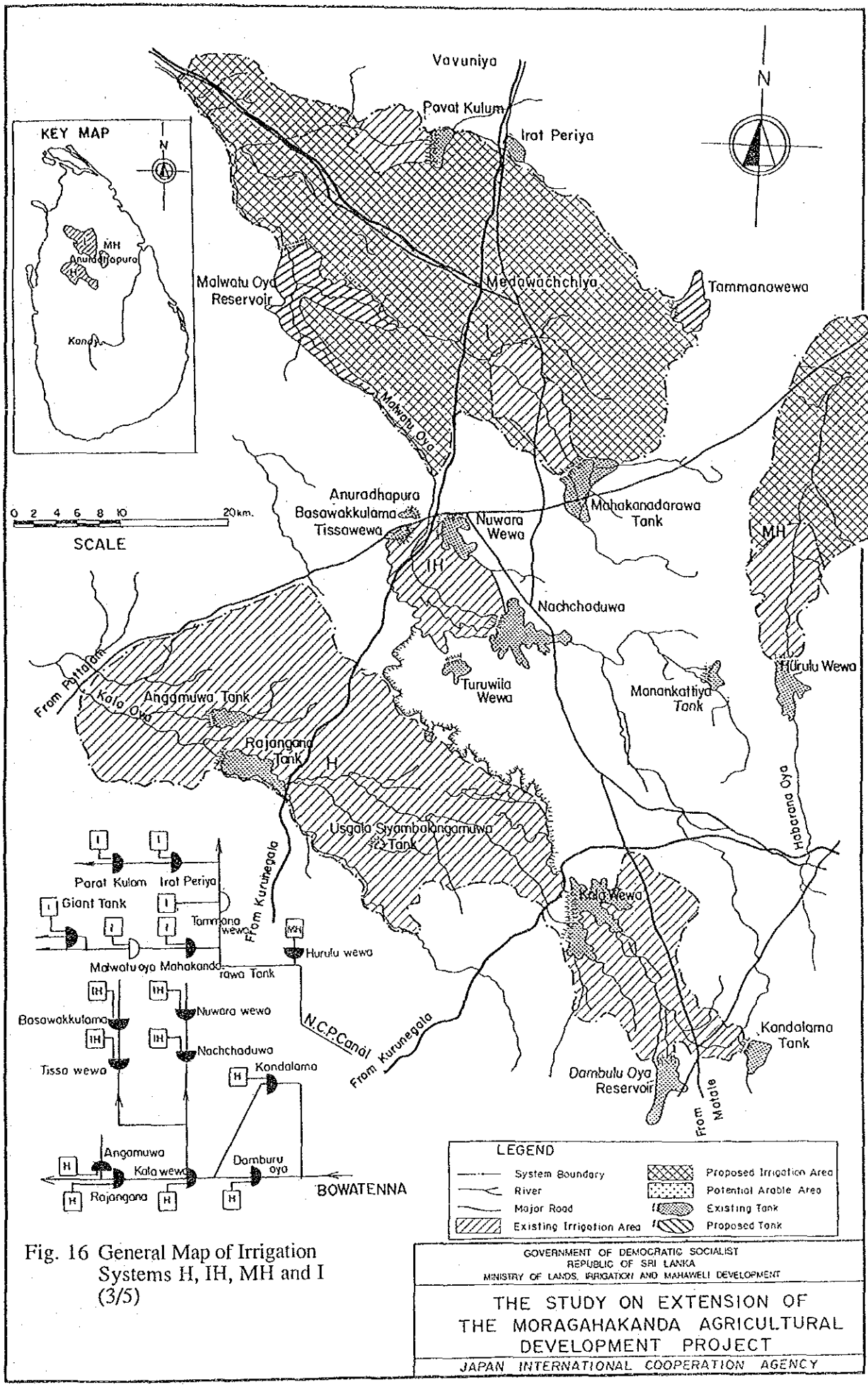


Fig. 16 General Map of Irrigation Systems H, IH, MH and I (3/5)

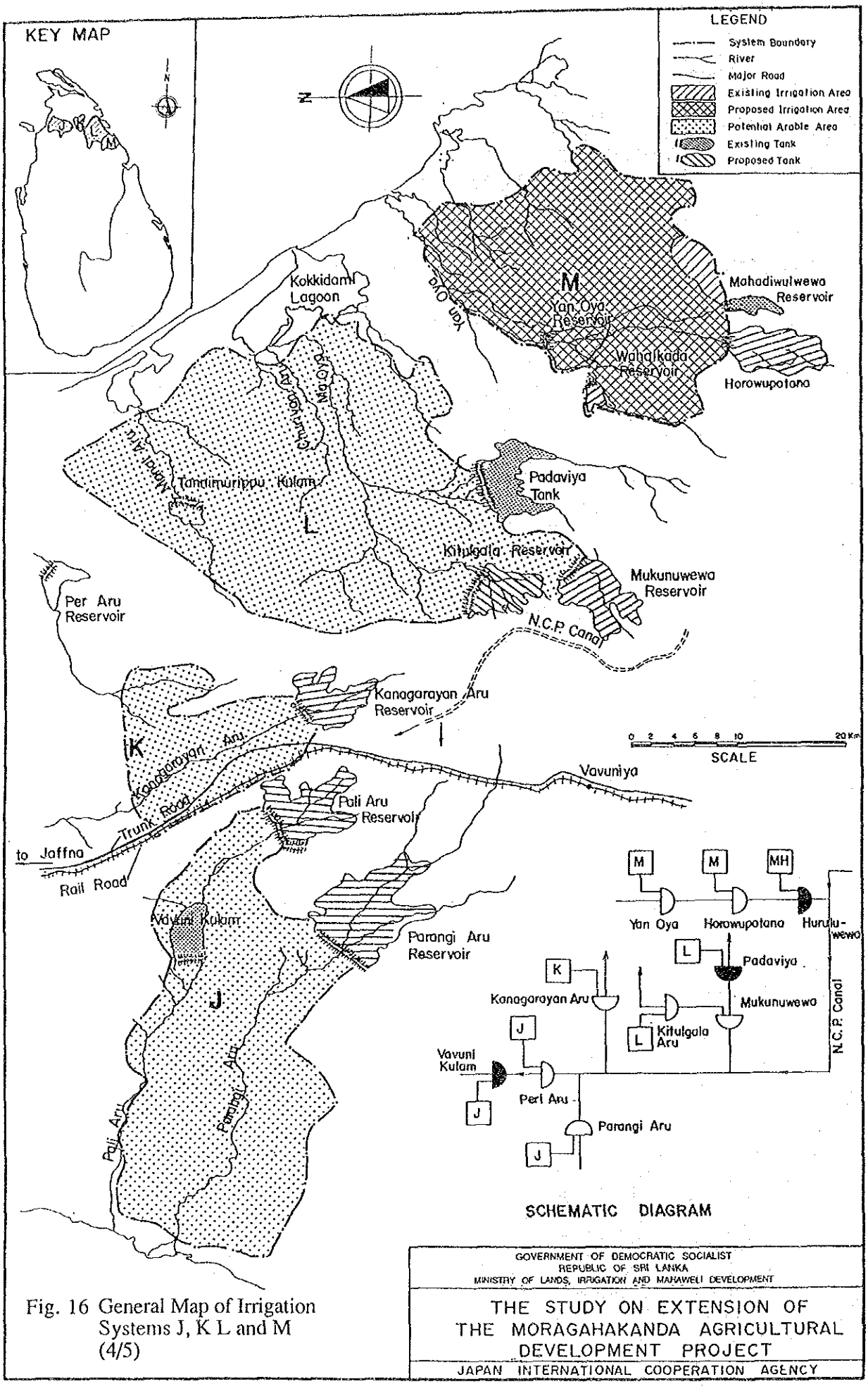


Fig. 16 General Map of Irrigation Systems J, K L and M (4/5)

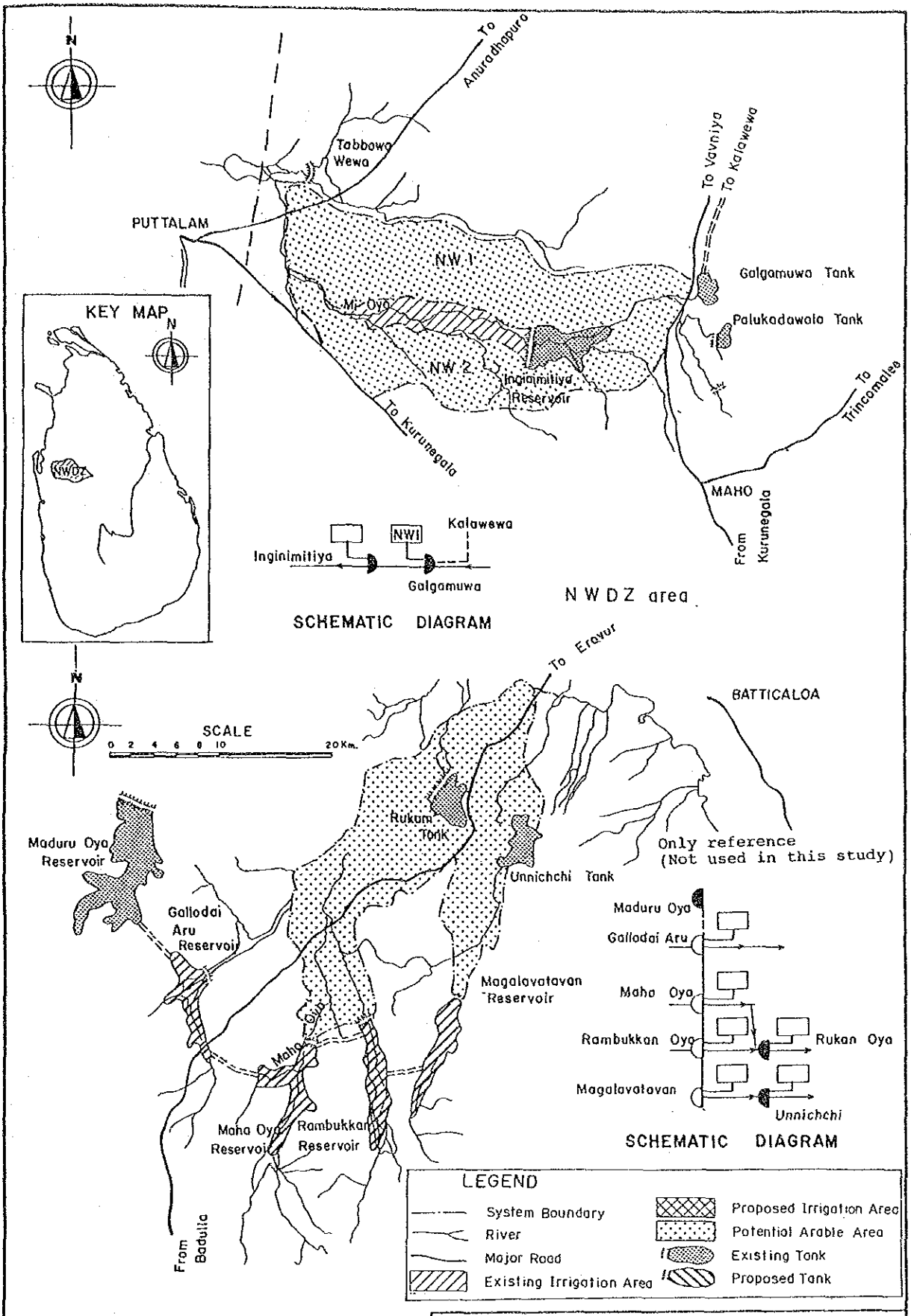


Fig. 16 Geneal Map of Irrigation System in NWDZ (5/5)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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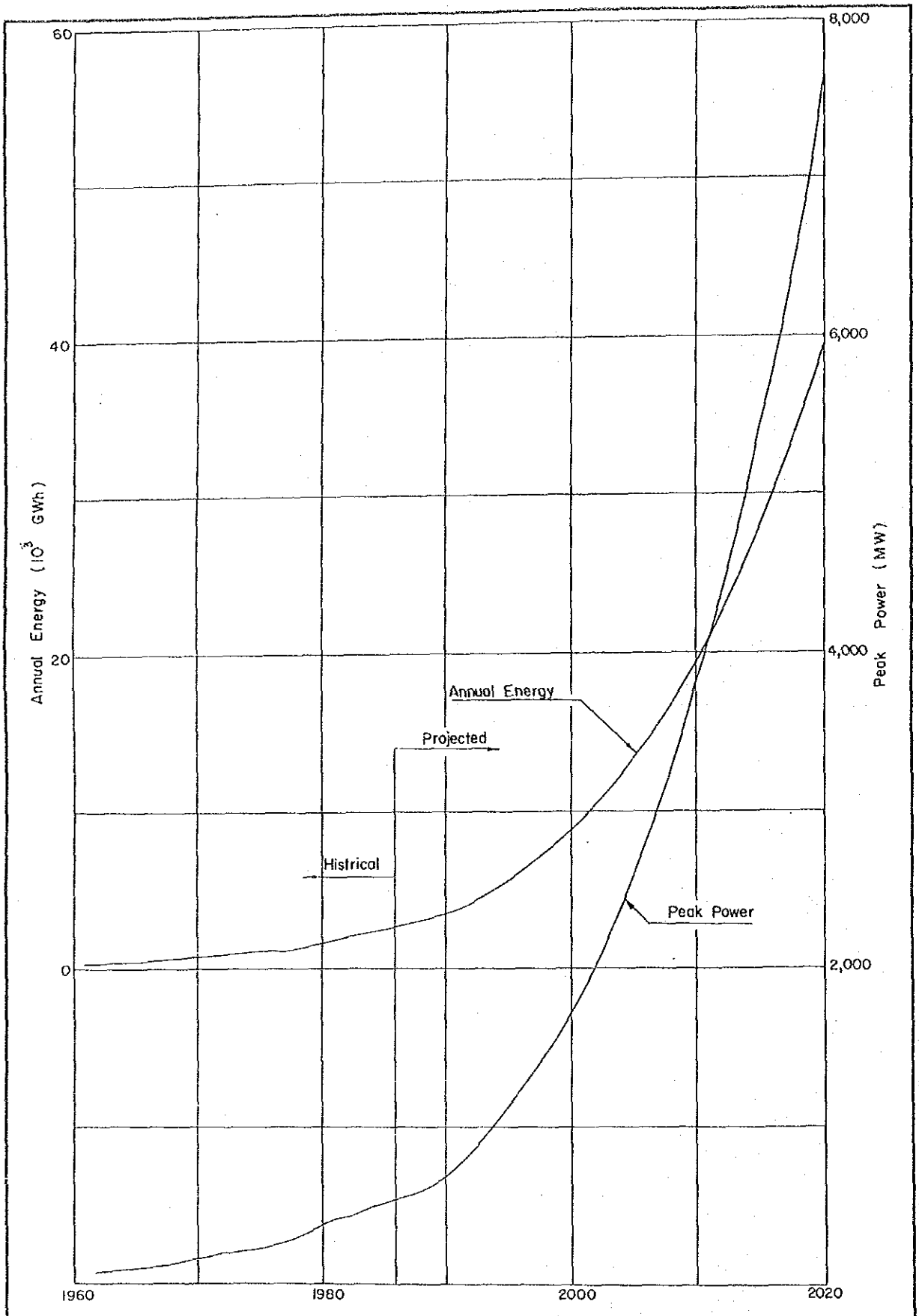


Fig. 17 Historical and Projected Power and Annual Energy Demand

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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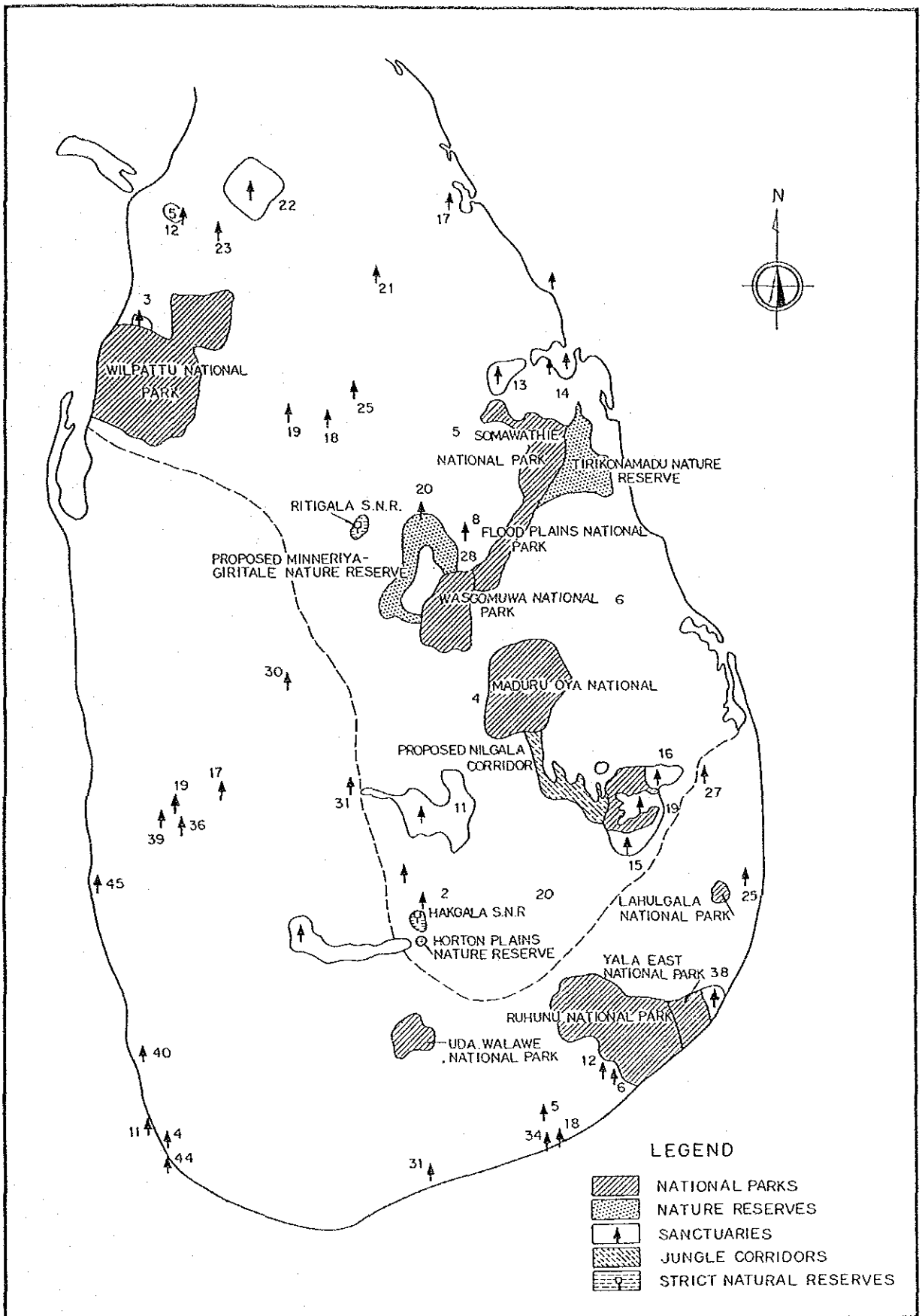


Fig. 18 Wildlife Reserves in Sri Lanka

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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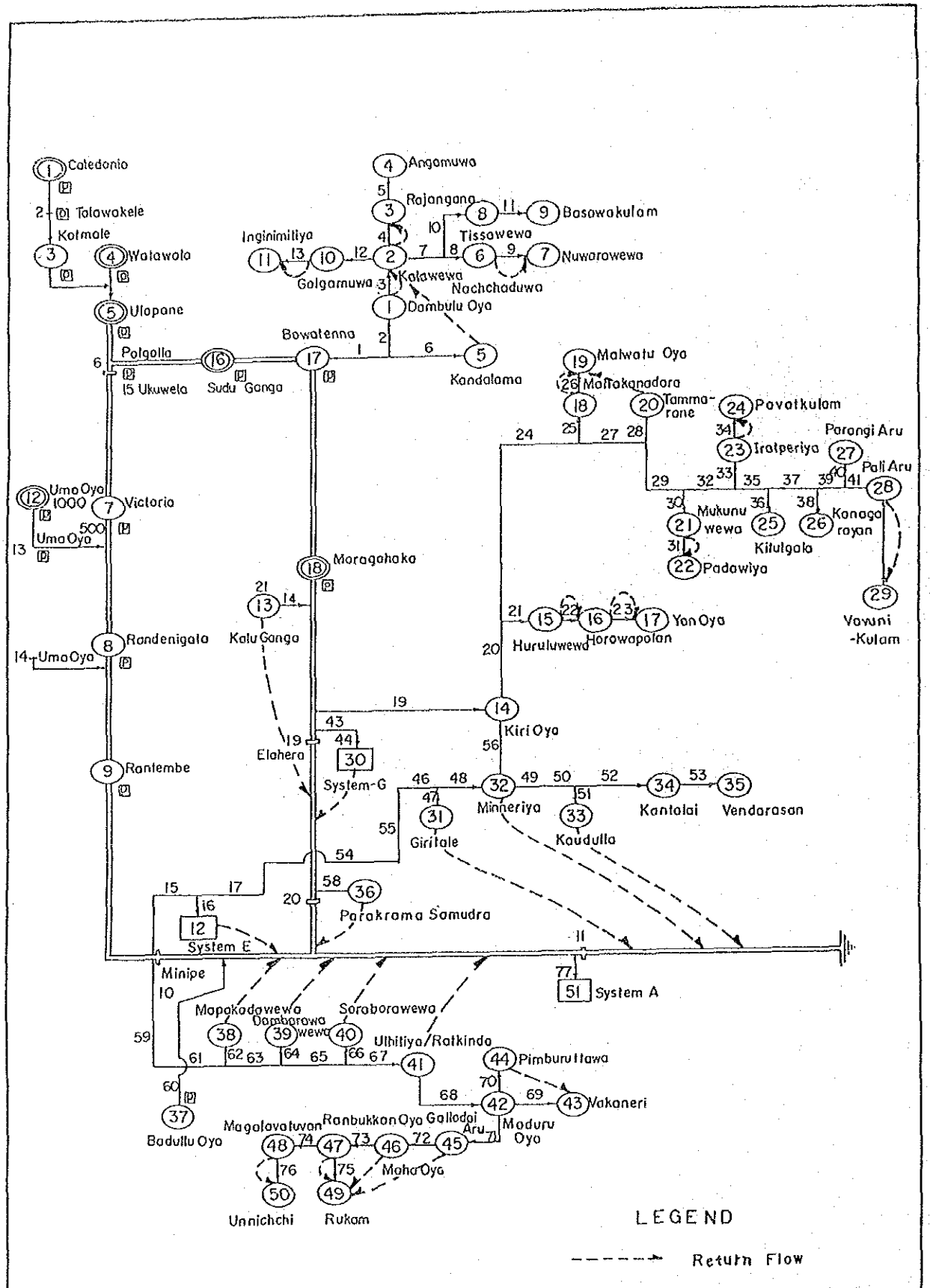


Fig. 19 Schematic Diagram of Return Flow (Future Plan: Case-A)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF LANDS, IRRIGATION AND MAHAWELI DEVELOPMENT
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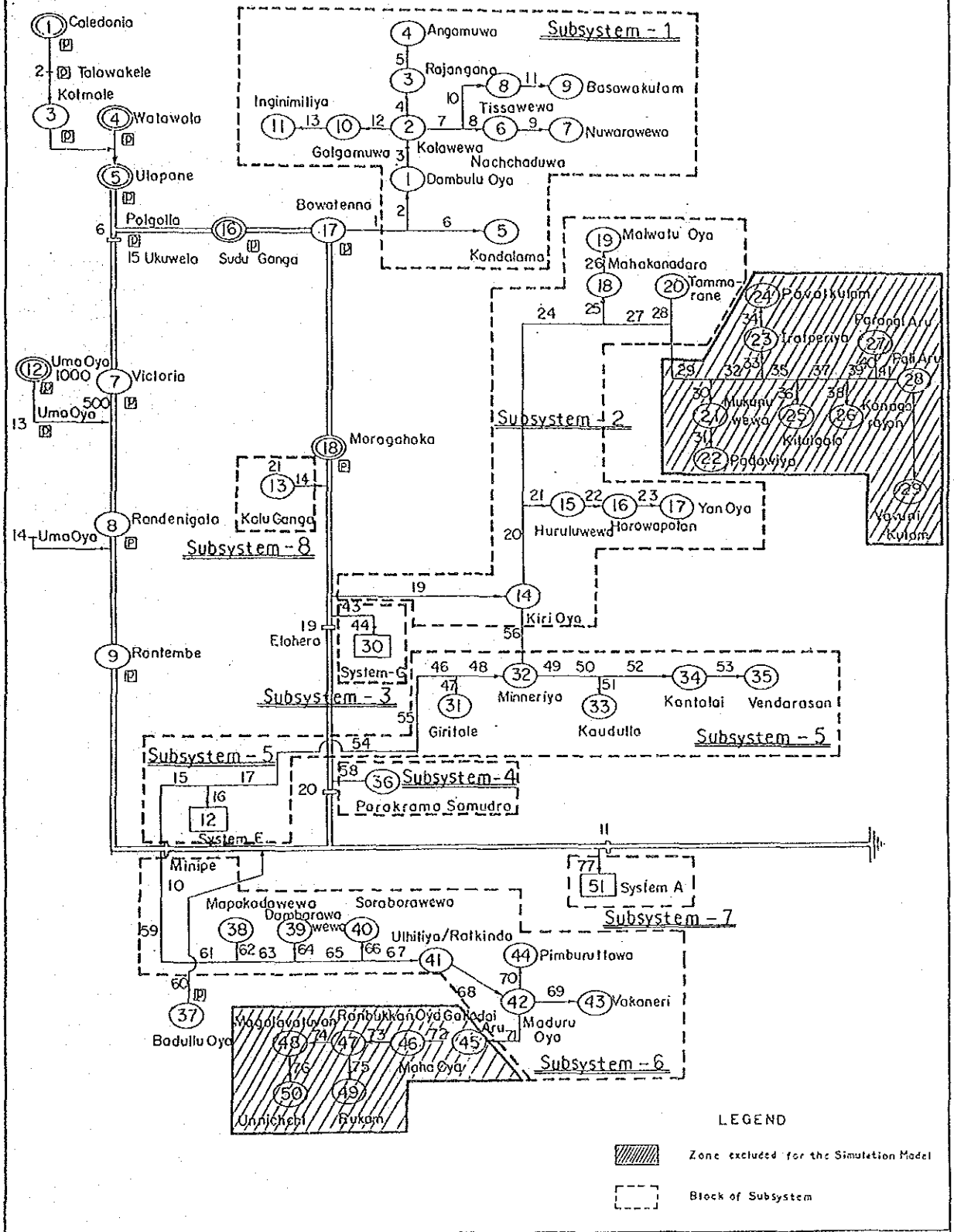


Fig. 20 Schematic Flow Diagram: Case-A (1/3)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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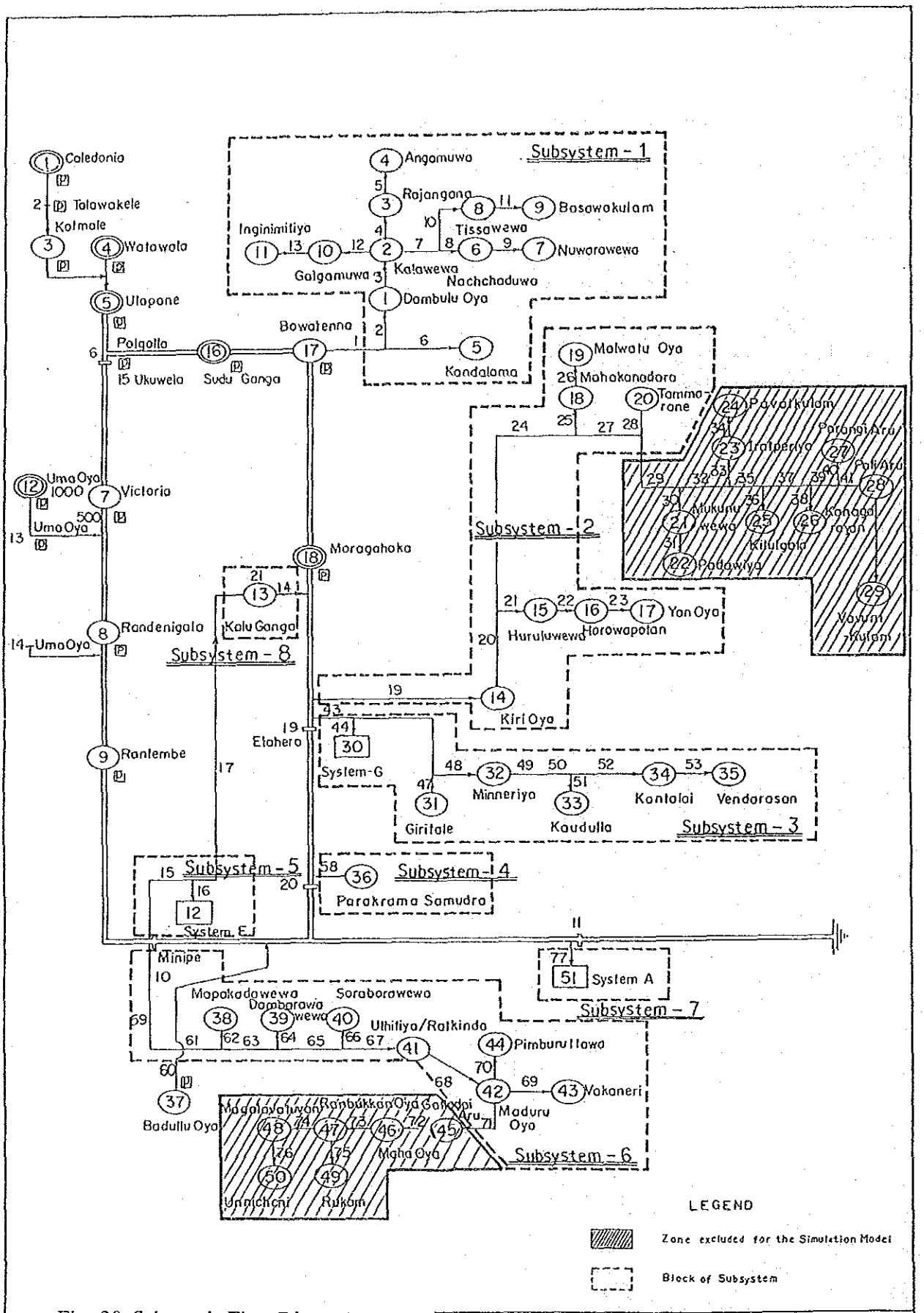


Fig. 20 Schematic Flow Diagram: Case-B (2/3)

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THE STUDY ON EXTENSION OF THE MORAGAHAKANDA AGRICULTURAL DEVELOPMENT PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY

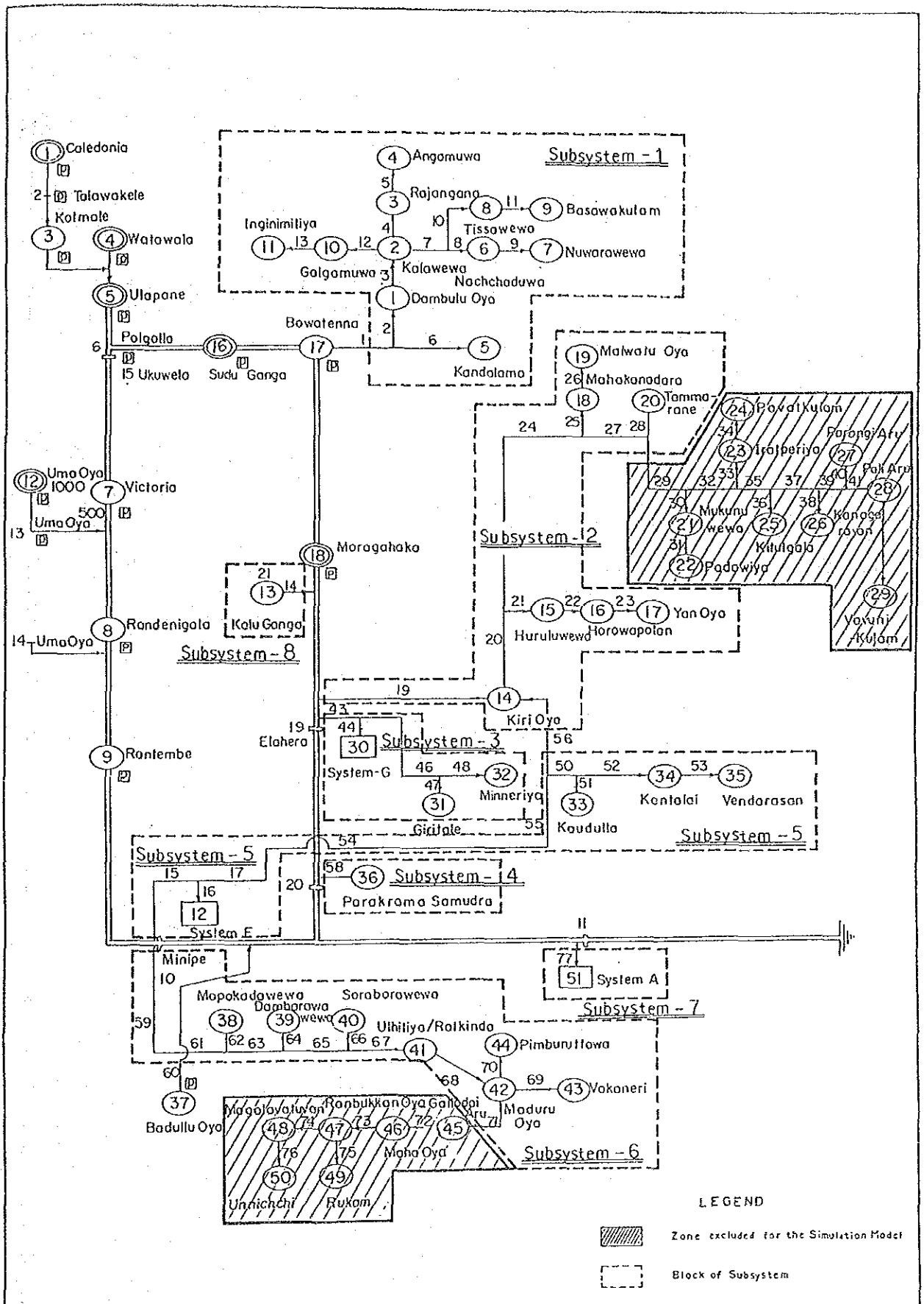


Fig. 20 Schematic Flow Diagram: Case-C (3/3)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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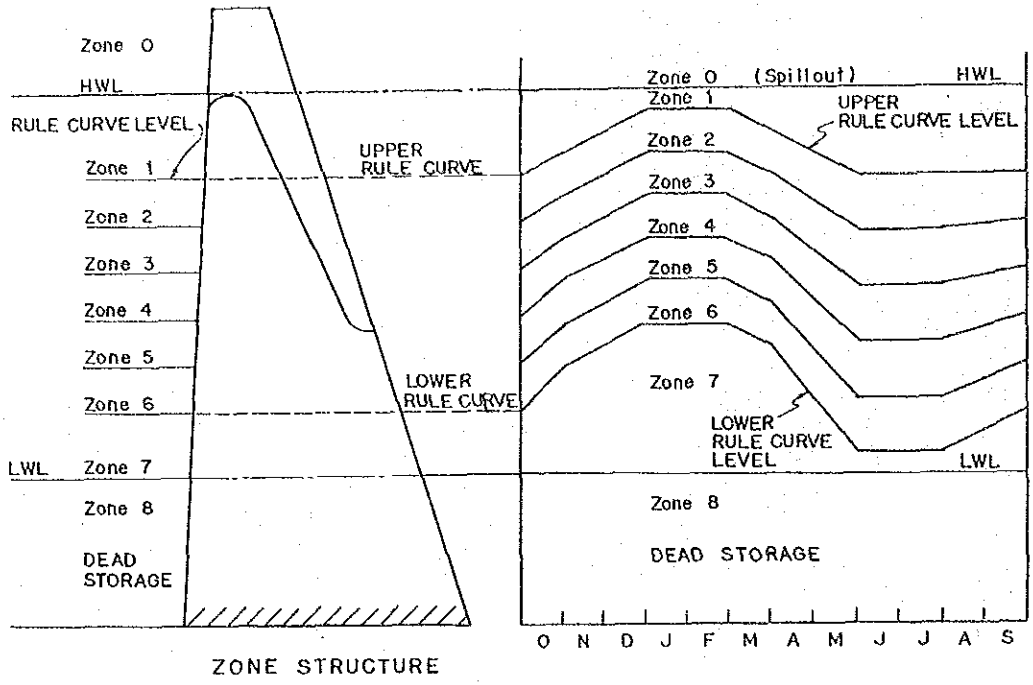


Fig. 21 Schematic Reservoir Zoning

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF LANDS, IRRIGATION AND MAHAWELI DEVELOPMENT
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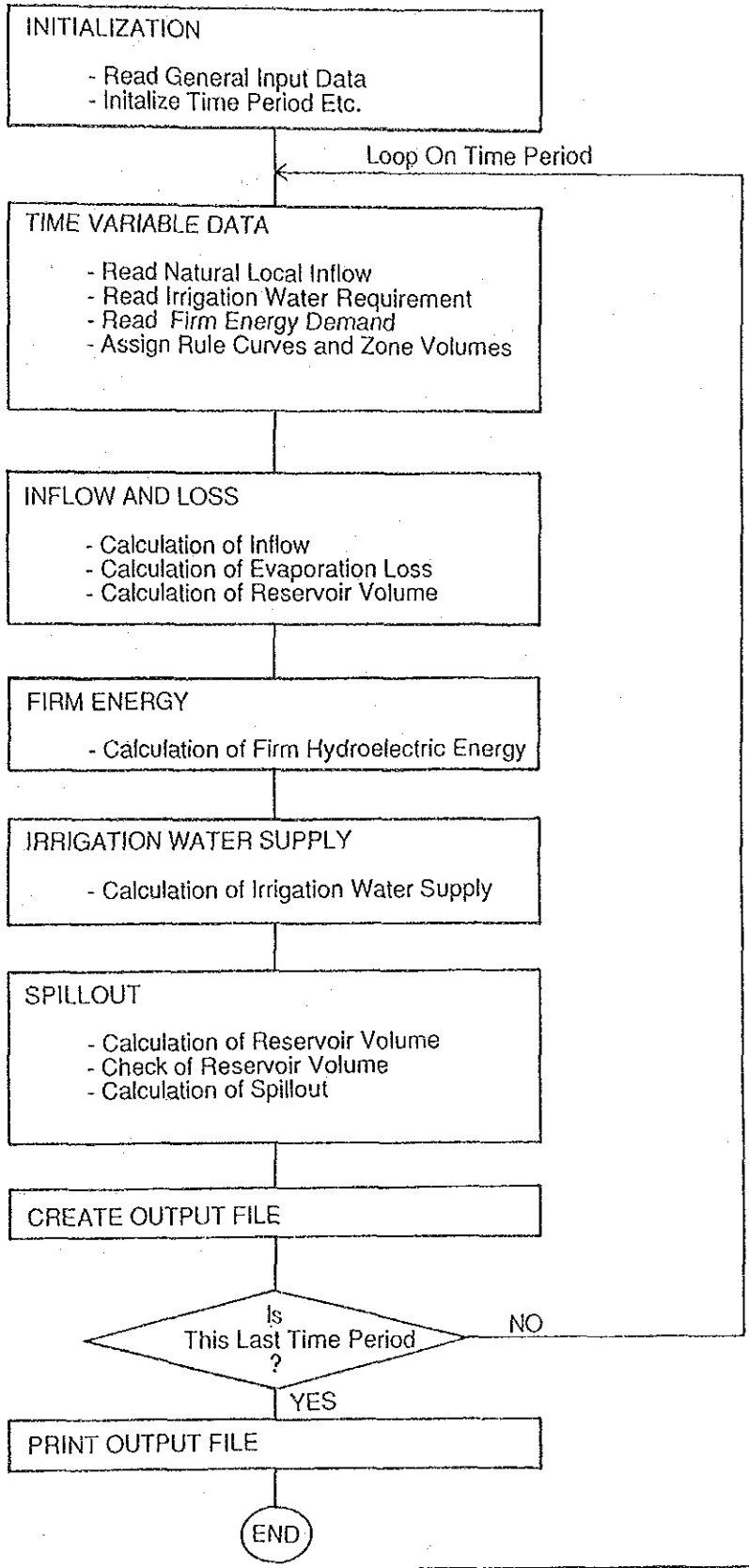
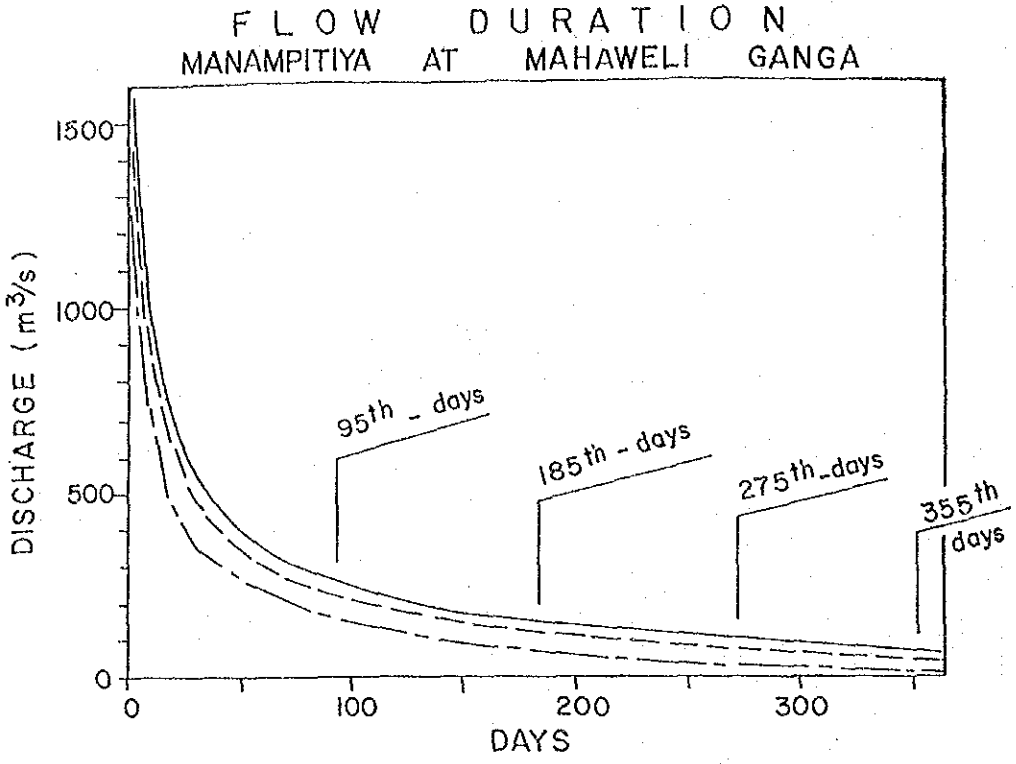


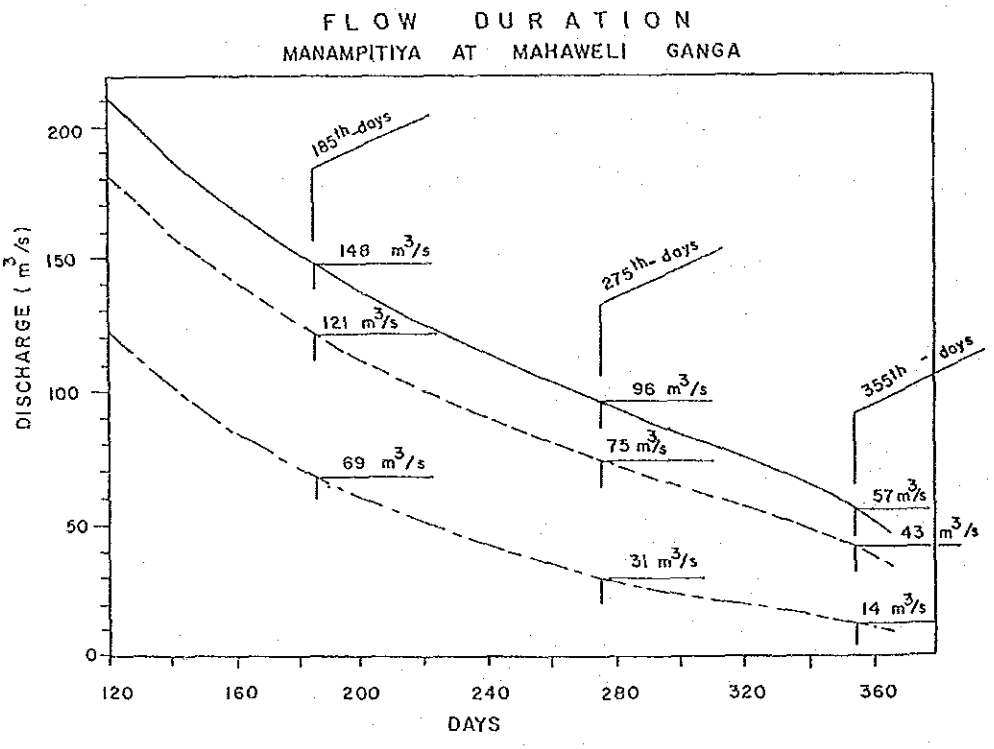
Fig. 22 General Flow Chart of Water Balance Simulation Model

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LEGEND

1954 - 1975 Average ——————

1954 - 1987 Average - - - - - -

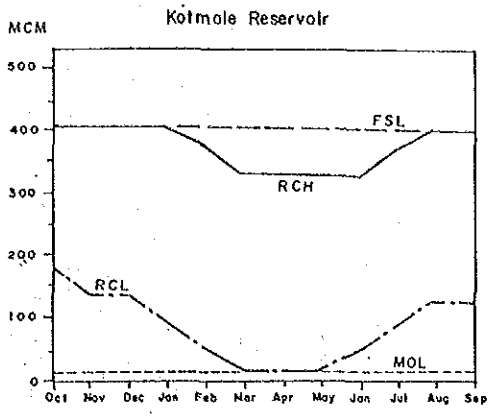
1976 - 1987 Average —— - ——

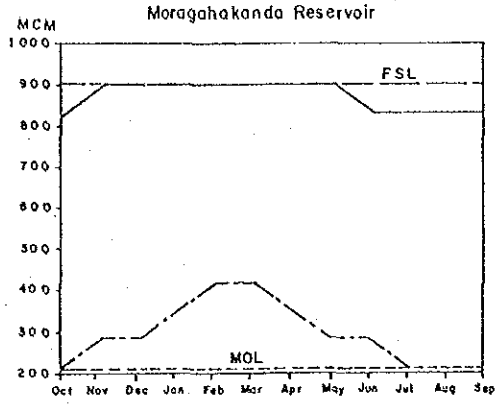
Fig. 23 Flow Duration at Manampitiya

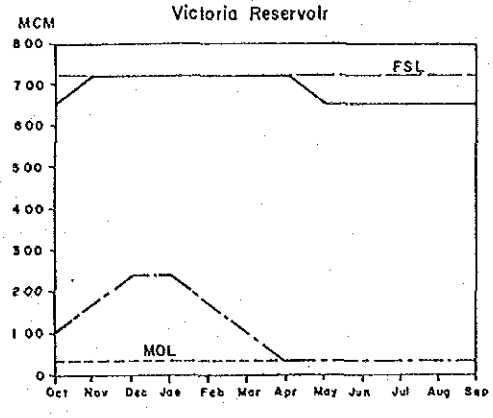
GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF LANDS, IRRIGATION AND MAHAWELI DEVELOPMENT

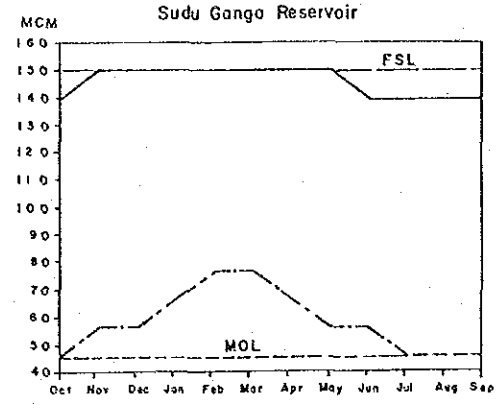
THE STUDY ON EXTENSION OF THE MORAGAHAKANDA AGRICULTURAL DEVELOPMENT PROJECT

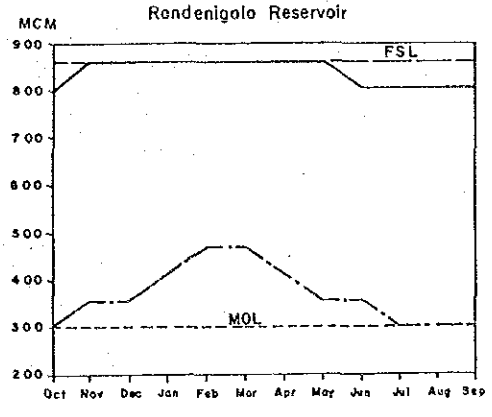
JAPAN INTERNATIONAL COOPERATION AGENCY

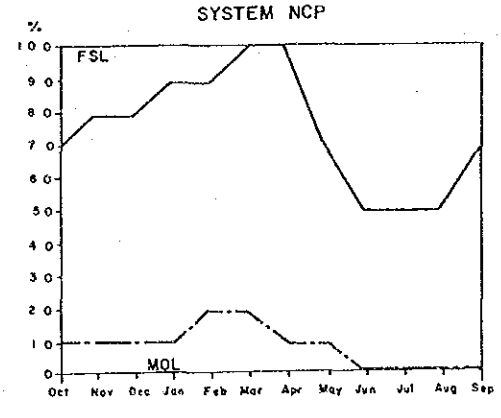


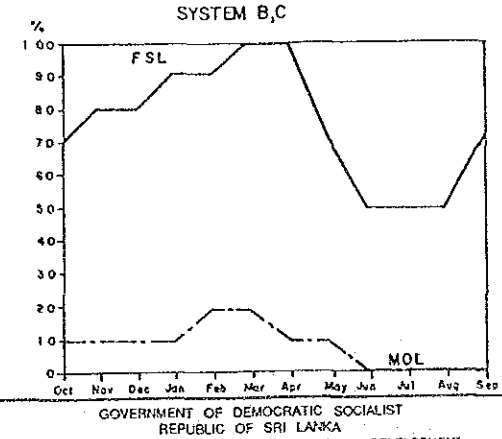












LEGEND:
- High Rule Curve
- Low Rule Curve
- FSL Full Supply Level
- MOL Minimum Operation Level

Fig. 24 Operation Rule Curve for Principal Reservoirs

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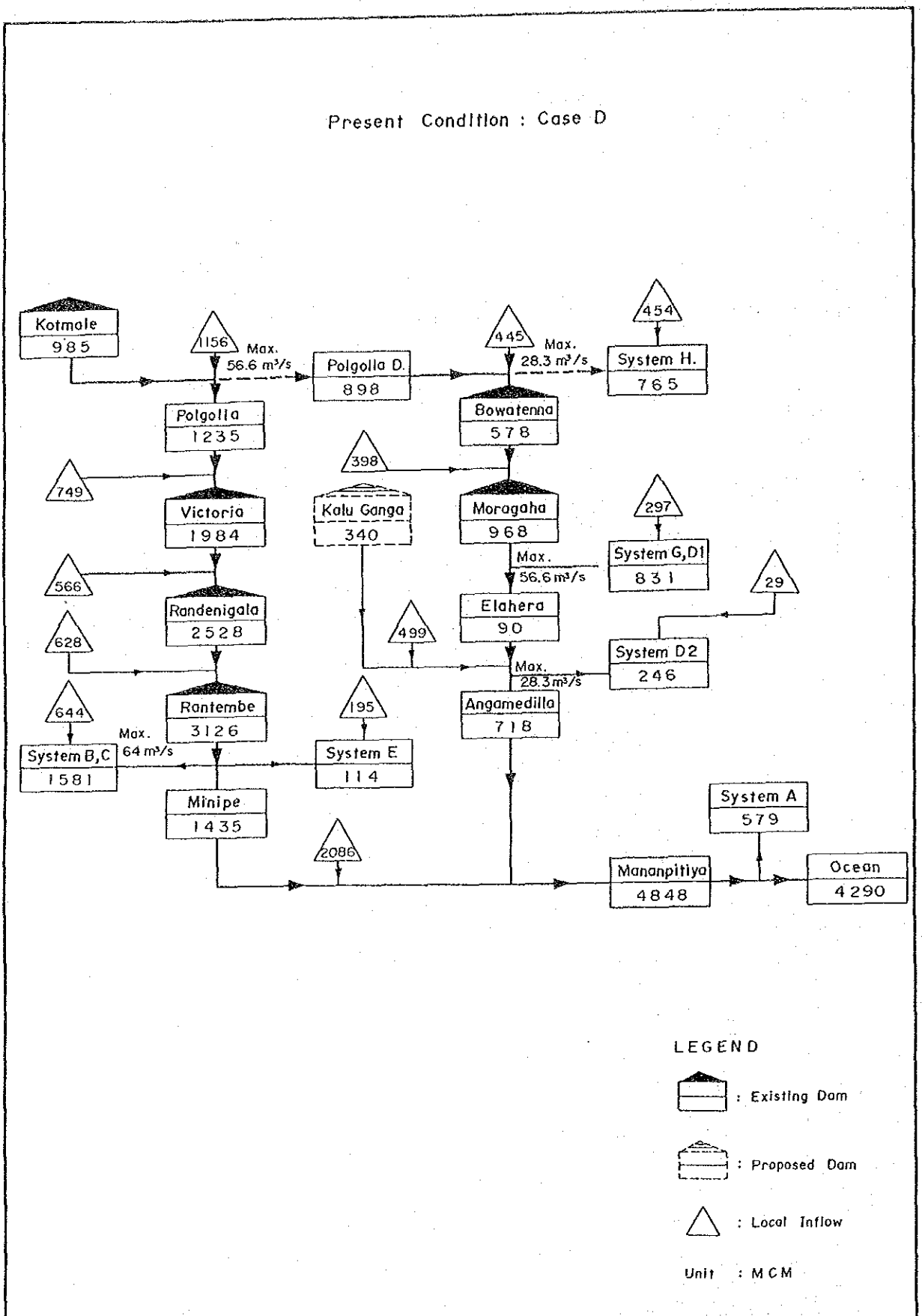


Fig. 25 System Flow Diagrams
(Present Condition: D-109)

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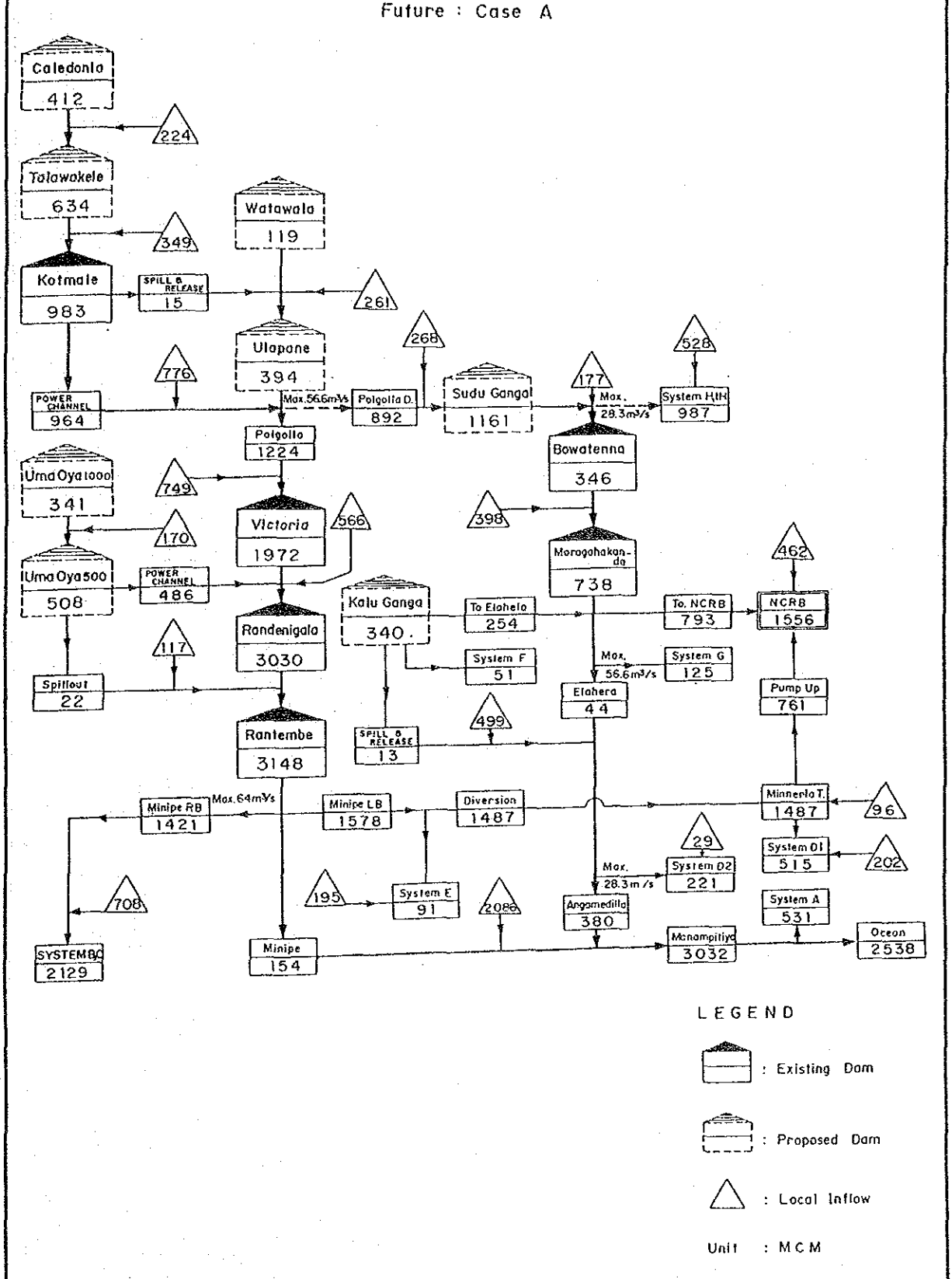


Fig. 26 System Flow Diagrams
(Fugure Plan: Case A-145)
(1/6)

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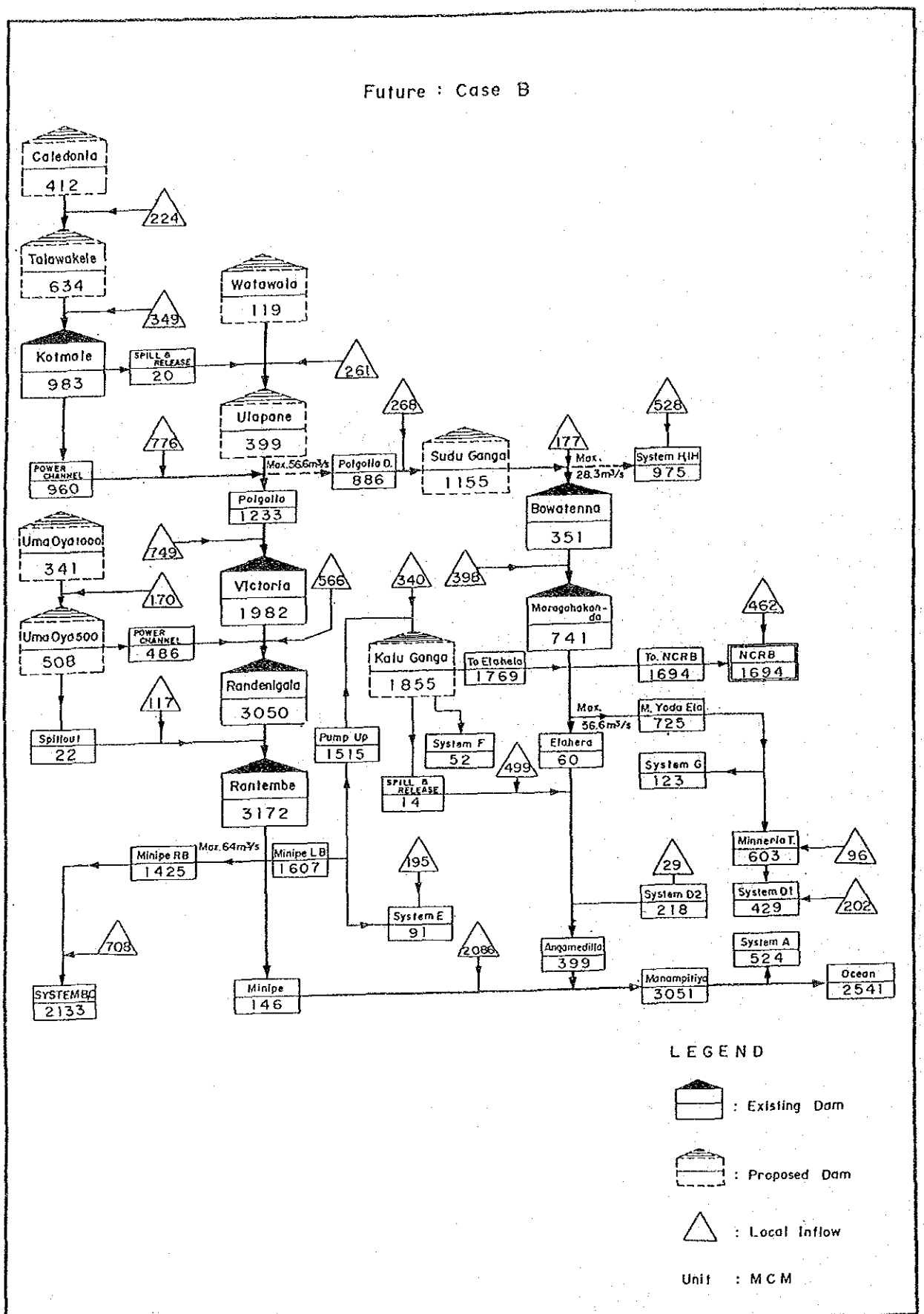


Fig. 26 System Flow Diagrams
(Future Plan: Case B-151)
(2/6)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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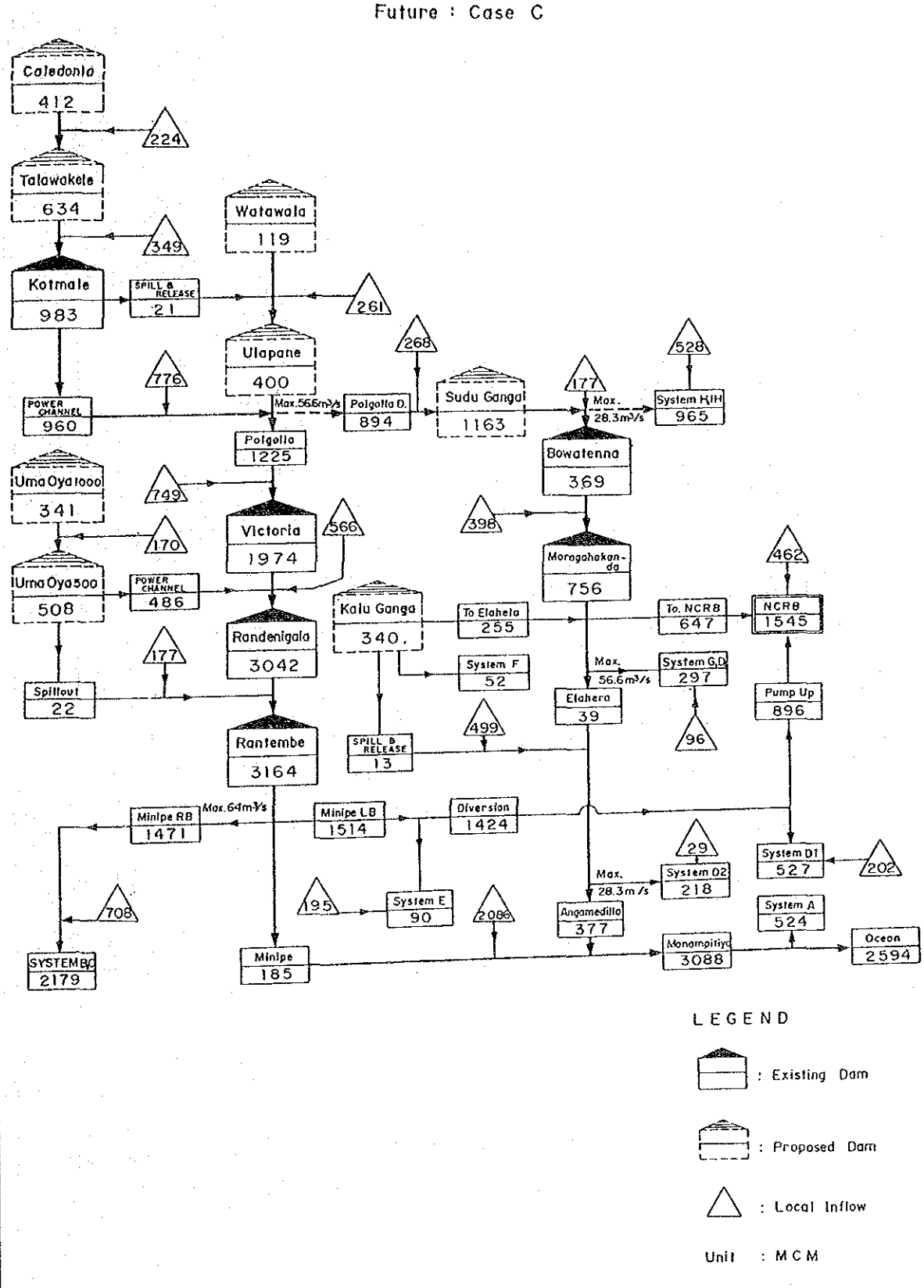


Fig. 26 System Flow Diagrams (Future Plan: Case C-145) (3/6)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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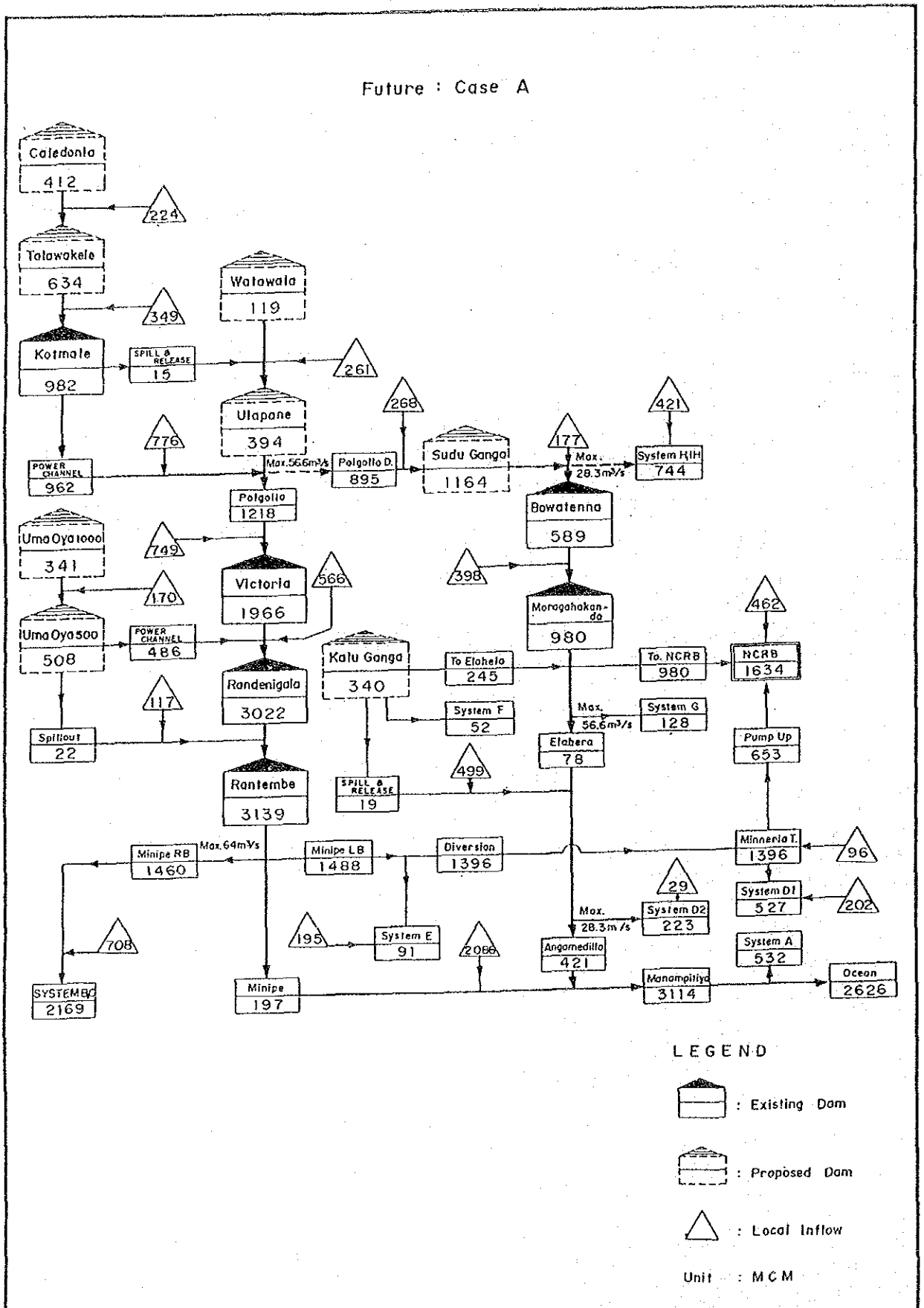


Fig. 26 System Flow Diagrams (Future Plan: Case A-118) (4/6)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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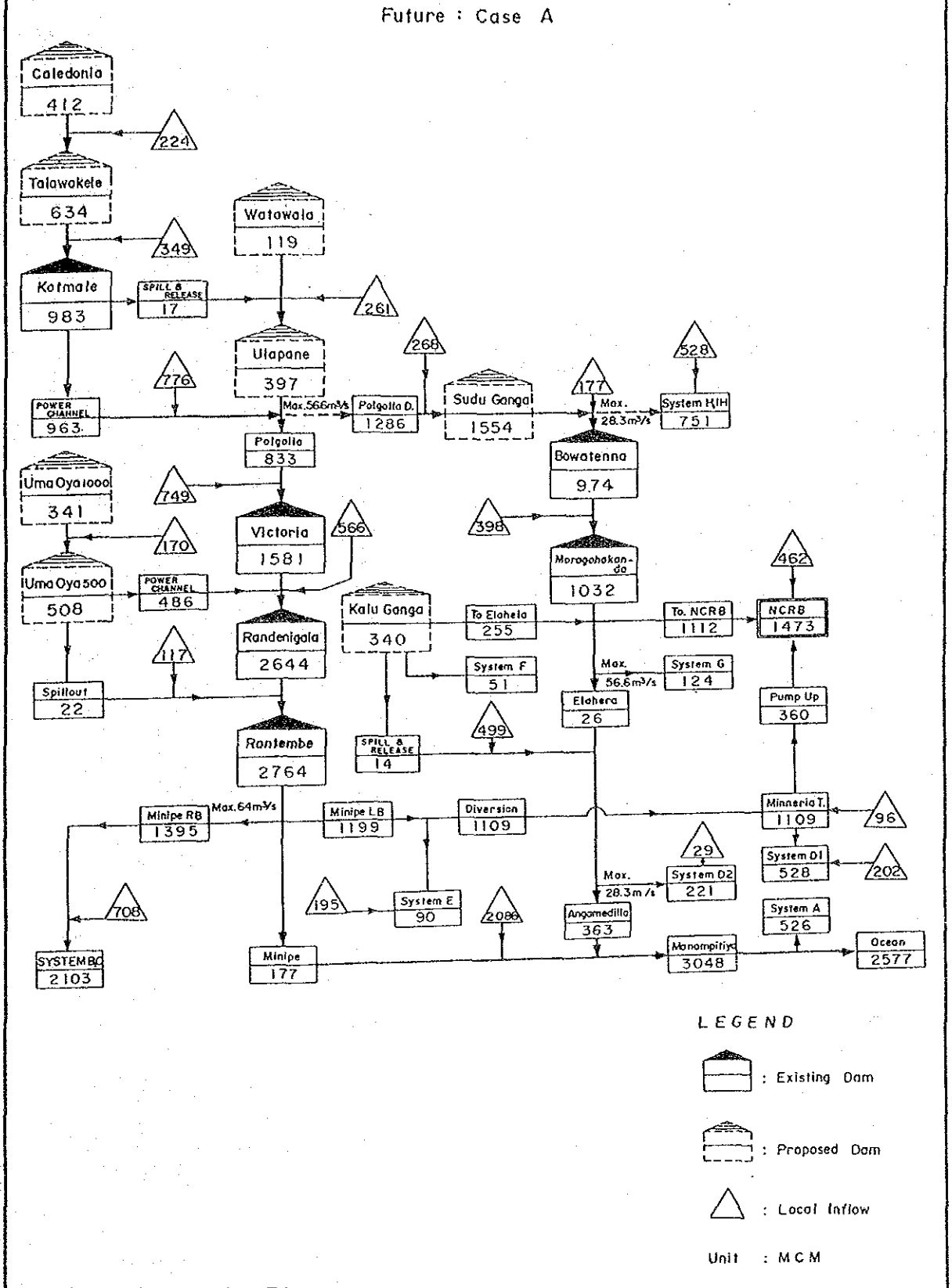


Fig. 26 *System Flow Diagrams*
(Future Plan: Case A-209)
(5/6)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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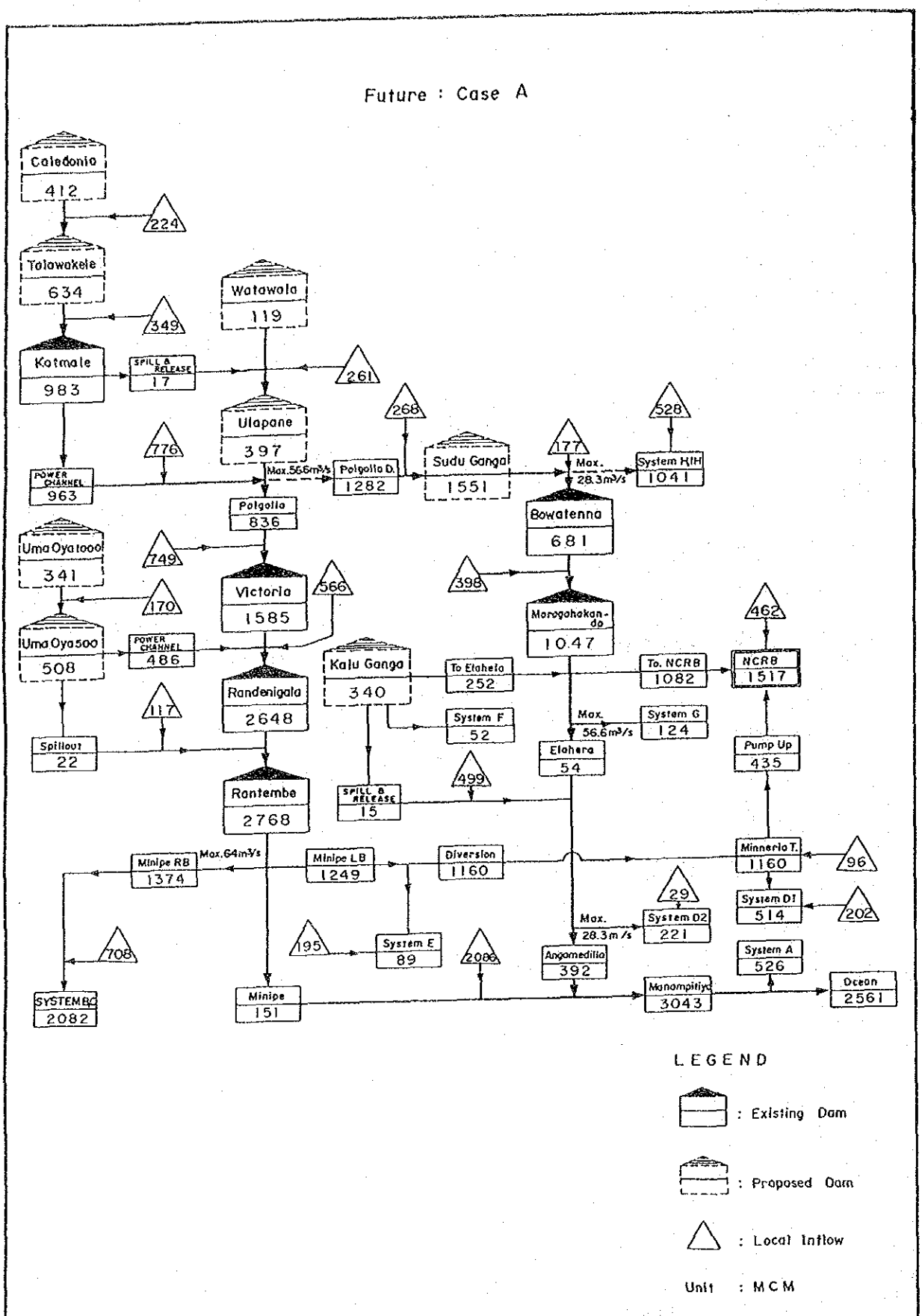


Fig. 26 System Flow Diagrams
(Future Plan: Case A-242)
(6/6)

GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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