

**FIGURES**

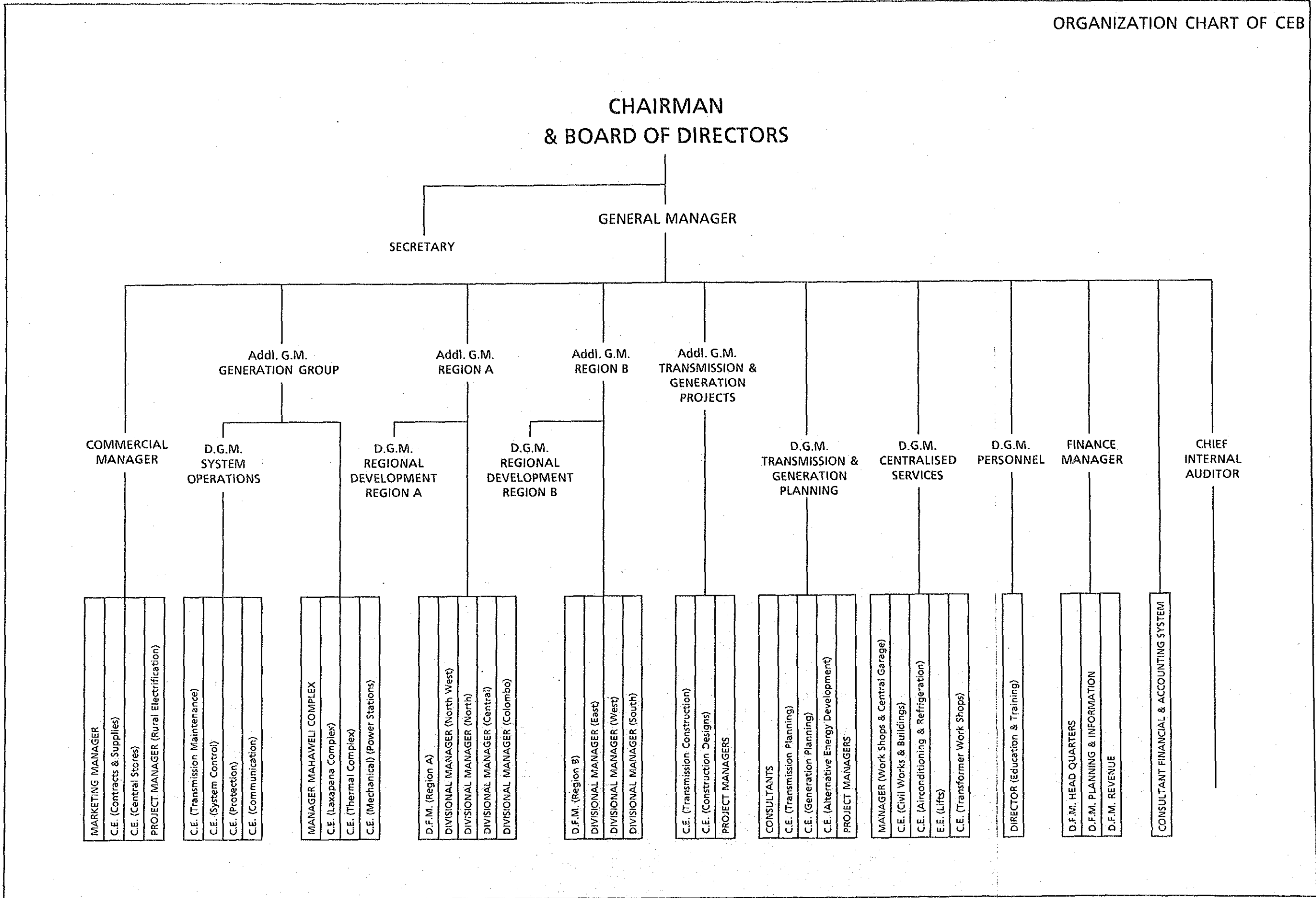


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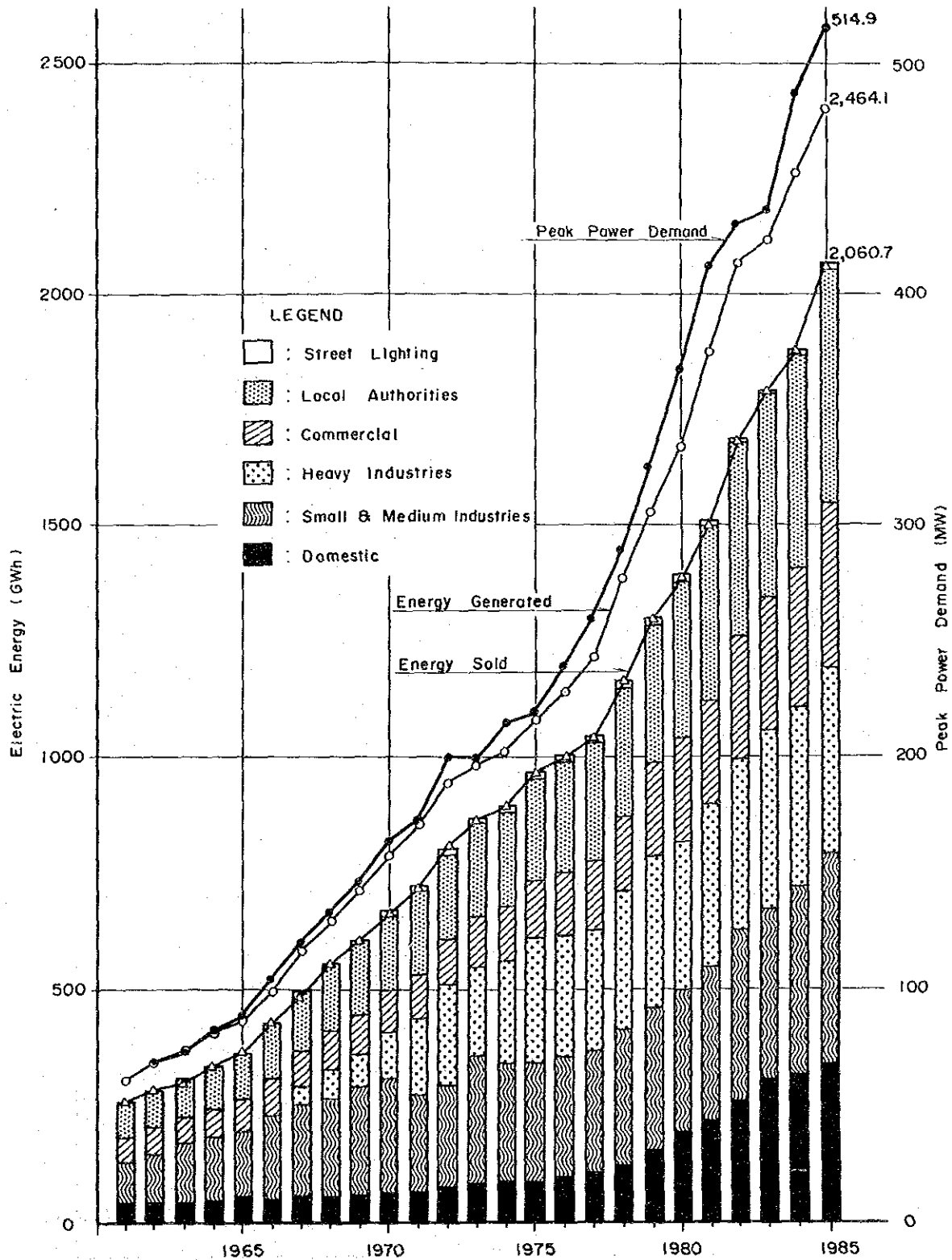
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ORGANIZATION CHART OF CEB





### HISTORICAL PEAK POWER DEMAND AND ENERGY GENERATED AND SOLD (1961-85)



Source : Electricity Energy Sales (GWh), Generation (GWh) and Maximum Demand (MW) Data on Sales and Generation (1985)

DAILY LOAD CURVE FOR June, 1985

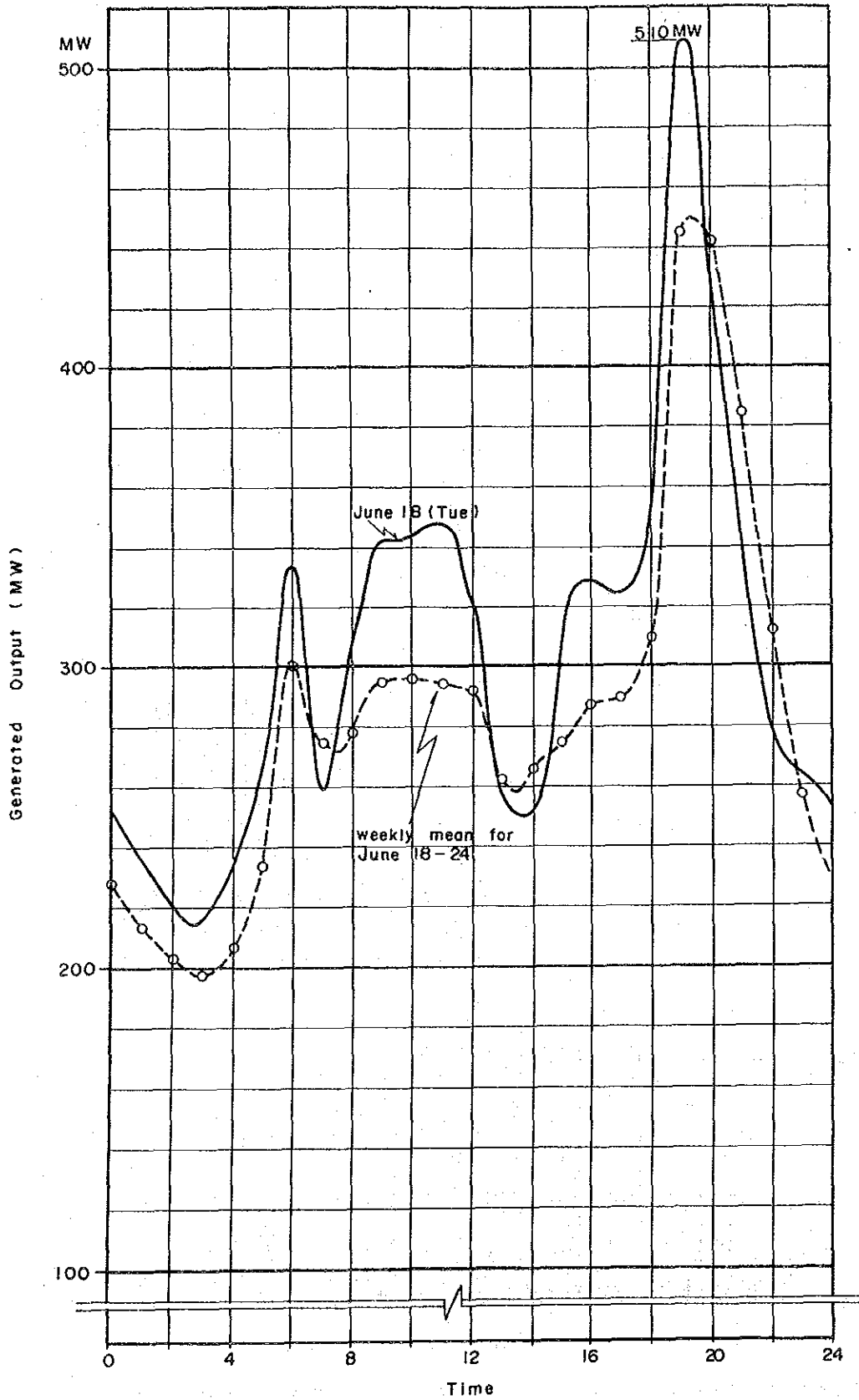




FIG.2.2-4

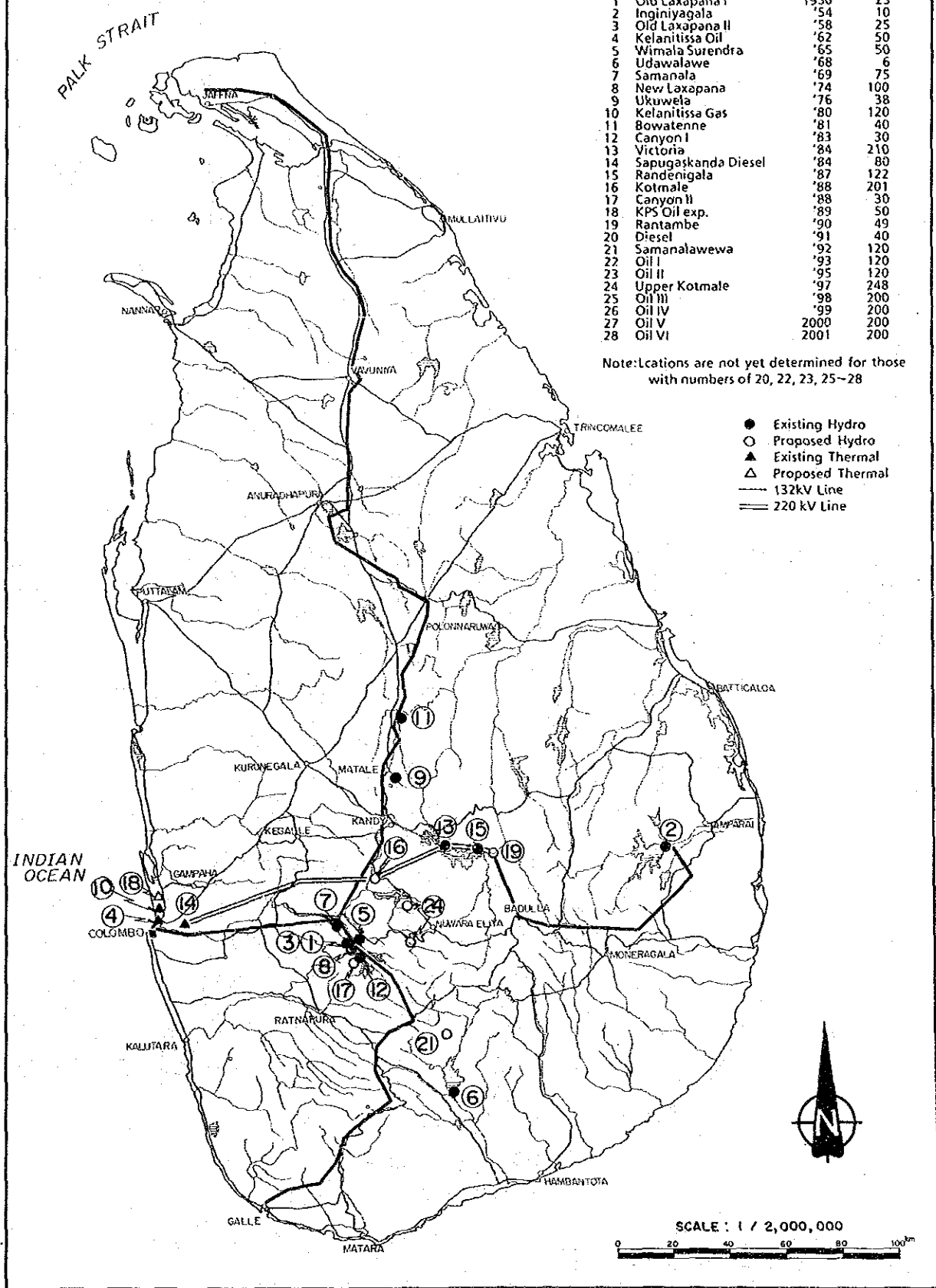
# ELECTRIC POWER STATIONS IN SRI LANKA

## LEGEND

No	Name of Stations	Year	MW
1	Old Laxapana I	1950	25
2	Inginiyagala	'54	10
3	Old Laxapana II	'58	25
4	Kelani-tissa Oil	'62	50
5	Wimala Surendra	'65	50
6	Udawalawe	'68	6
7	Samanala	'69	75
8	New Laxapana	'74	100
9	Ukuwela	'76	38
10	Kelani-tissa Gas	'80	120
11	Bowatenne	'81	40
12	Canyon I	'83	30
13	Victoria	'84	210
14	Sapugaskanda Diesel	'84	80
15	Randenigala	'87	122
16	Kotmale	'88	201
17	Canyon II	'88	30
18	KPS Oil exp.	'89	50
19	Rantambe	'90	49
20	Diesel	'91	40
21	Samanalawewa	'92	120
22	Oil I	'93	120
23	Oil II	'95	120
24	Upper Kotmale	'97	248
25	Oil III	'98	200
26	Oil IV	'99	200
27	Oil V	2000	200
28	Oil VI	2001	200

Note: Locations are not yet determined for those with numbers of 20, 22, 23, 25-28

- Existing Hydro
- Proposed Hydro
- ▲ Existing Thermal
- △ Proposed Thermal
- 132kV Line
- == 220 kV Line



POTENTIAL HYDROPOWER PROJECTS

LEGEND

- |   |               |          |
|---|---------------|----------|
| ① | Brodlands     | 40 MW    |
| ② | Upper Uma Oya | } 171 MW |
| ③ | Lower Uma Oya |          |
| ④ | Kukule        | 180 MW   |
| ⑤ | Jasmin        | 90 MW    |
| ⑥ | Hololuwa      | 30 MW    |
| ⑦ | Ratnapura     | 40 MW    |

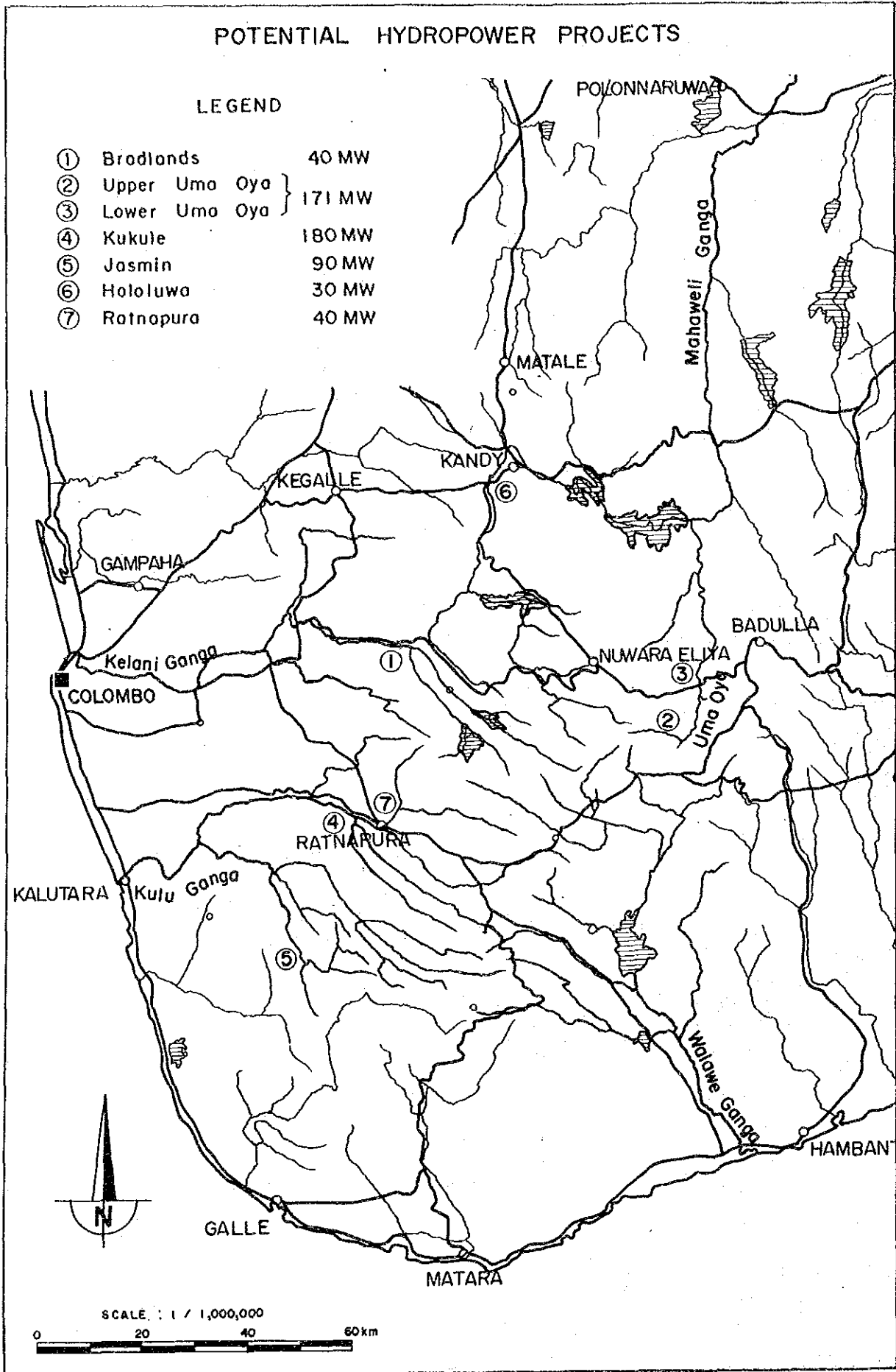


FIG.2.2-6

# ELECTRICITY SYSTEM OF SRI LANKA

## LEGEND

### Power Stations and Substations

- Existing P/S
- P/S under construction
- S/W Station, Grid Substation

### Transmission Lines

- ==== Existing 220kV
- XXXX 220kV under construction
- Exist. 220kV operated at 132kV
- Existing 132kV
- \*\*\*\*\* 132kV under construction
- ..... Exist. 132kV operated at 66kV
- Exist. 66kV

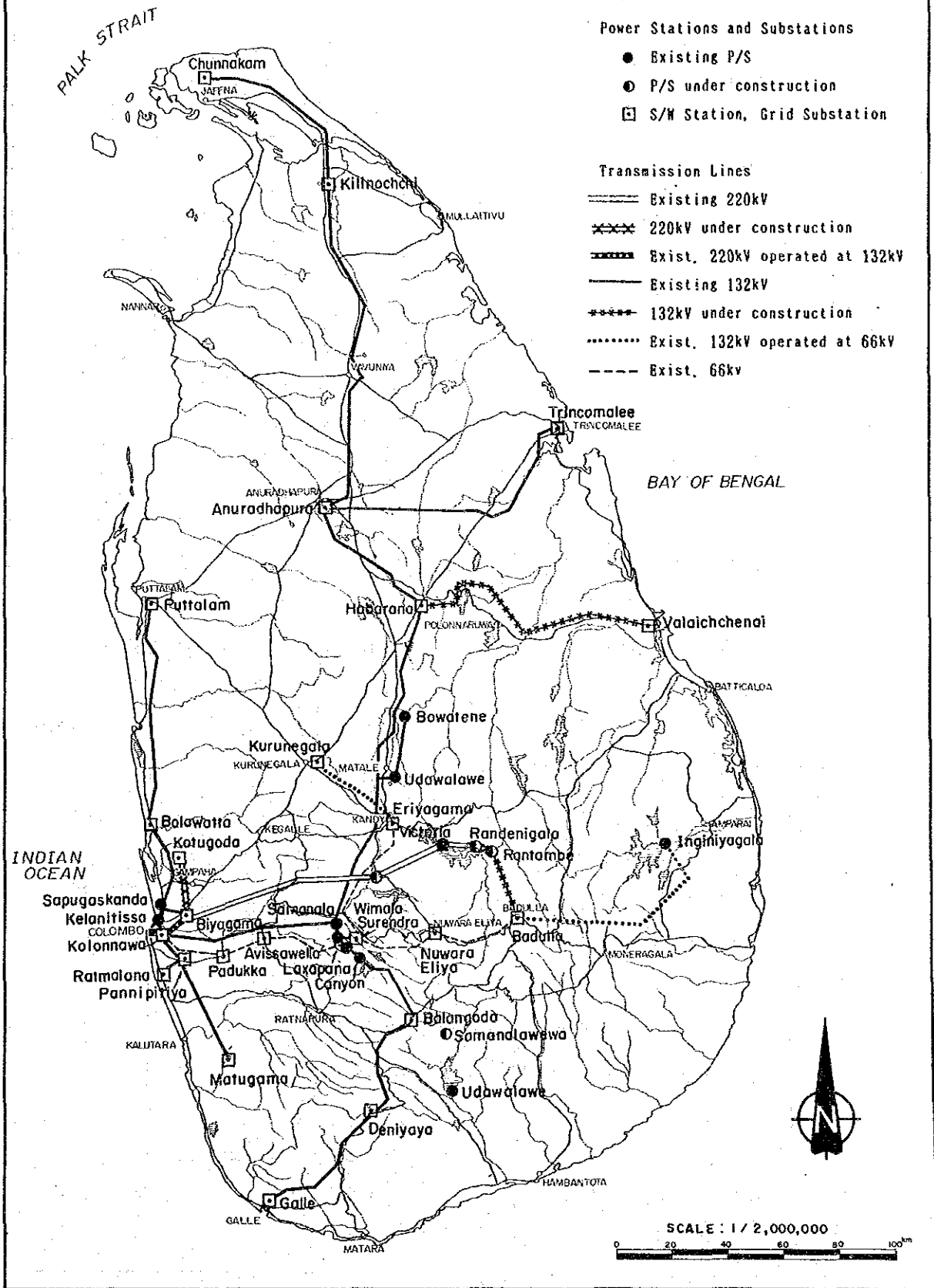
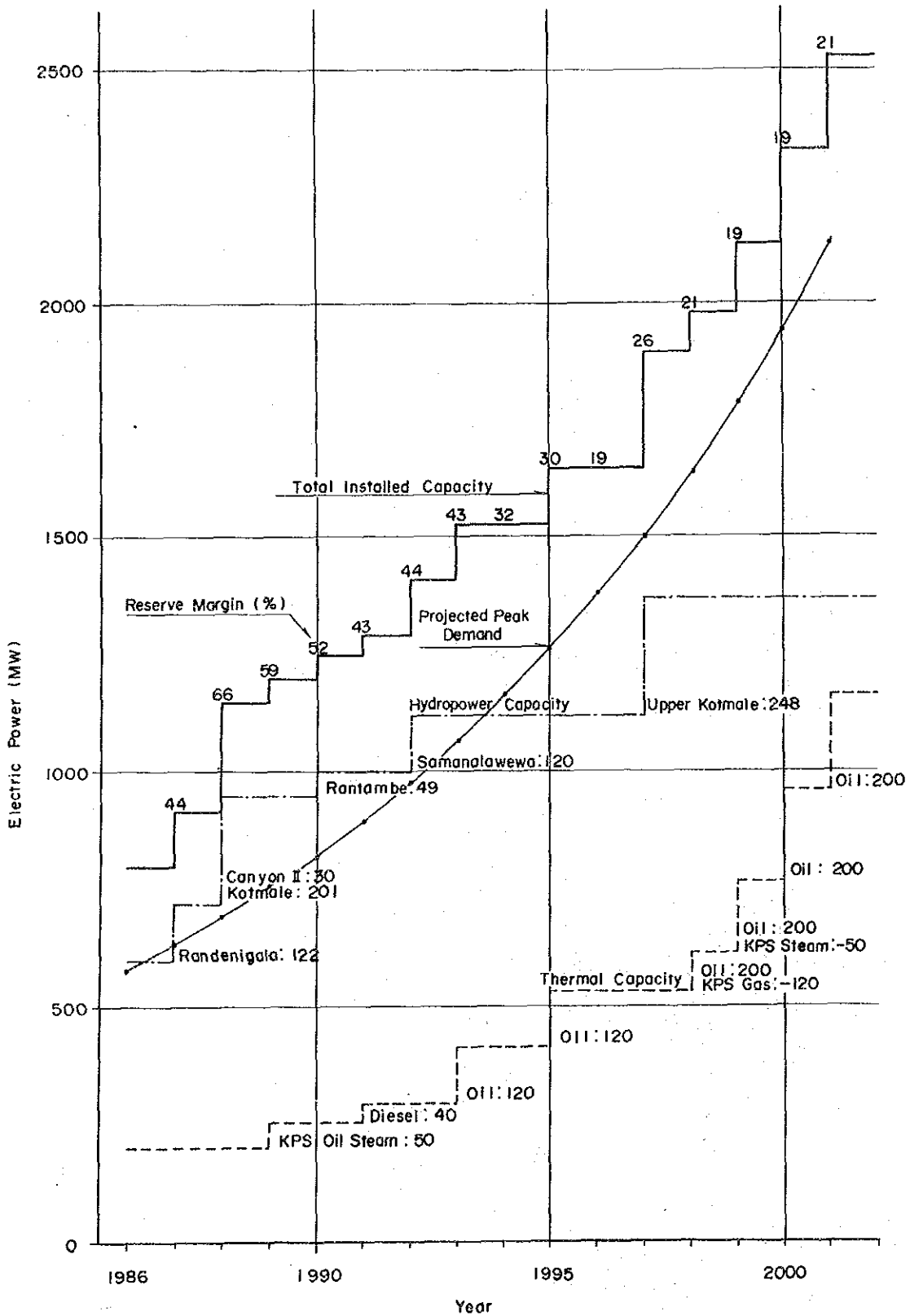
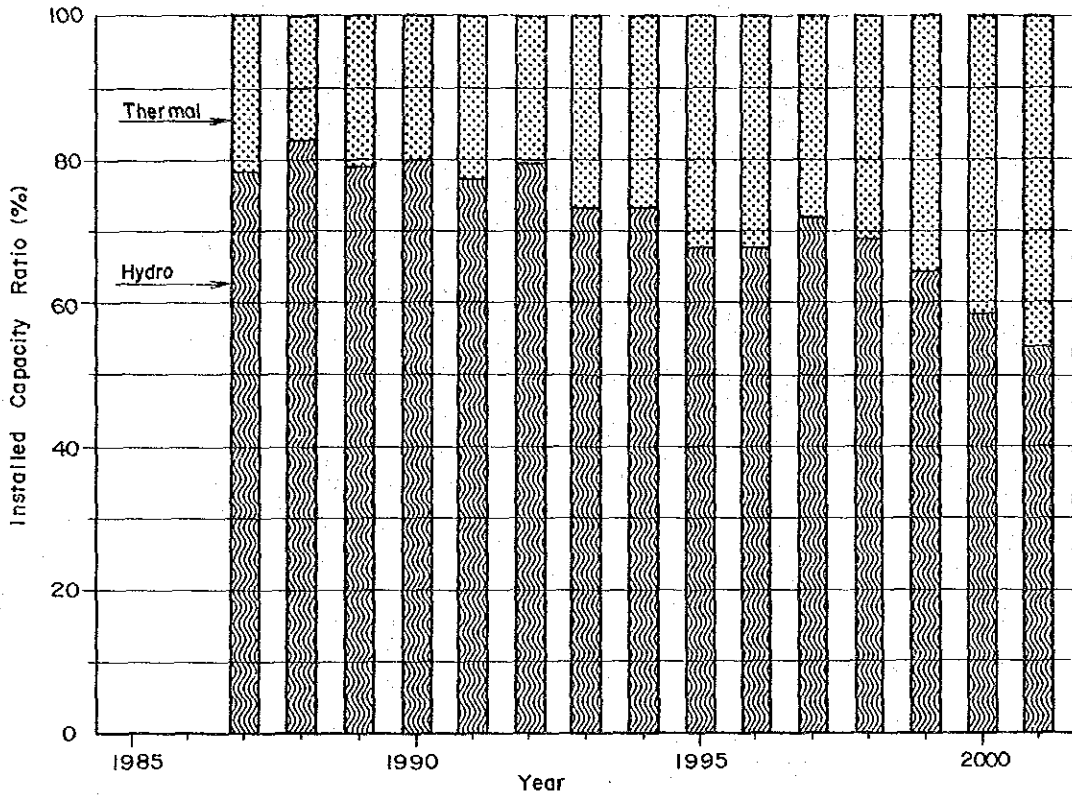


FIG.2.2-7

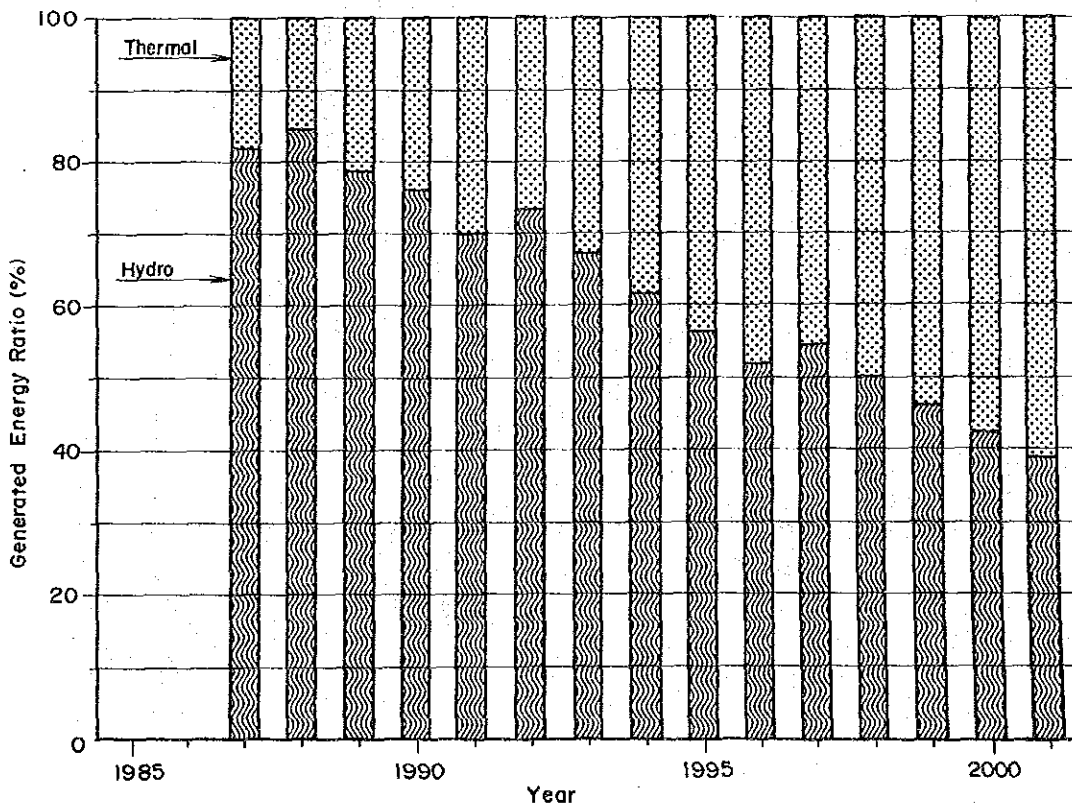
PROJECTED POWER DEMAND AND INSTALLED CAPACITY (1987-2001)

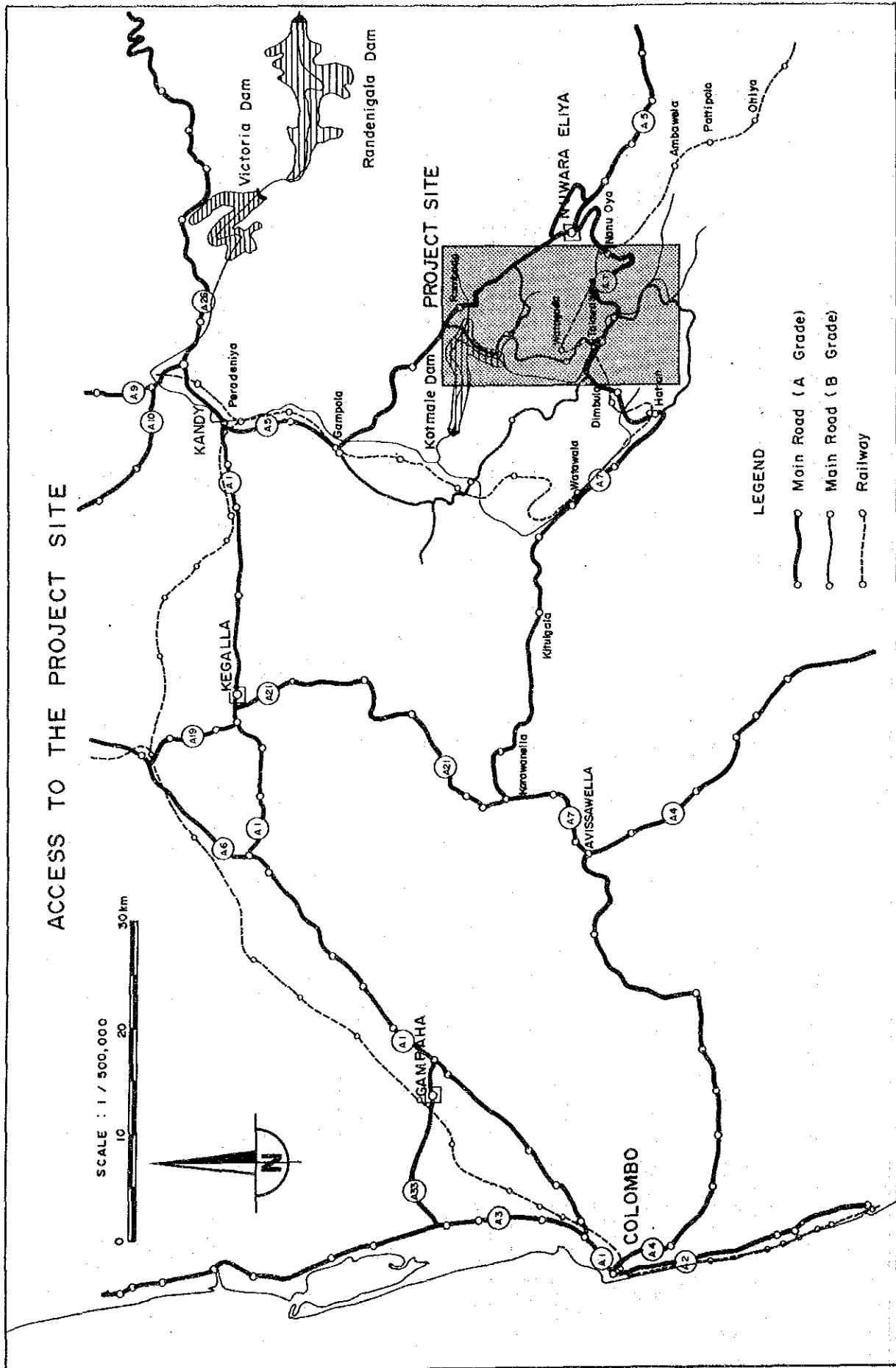


PROJECTED HYDRO AND THERMAL CAPACITY RATIO(1987-2001)



PROJECTED HYDRO AND THERMAL GENERATION RATIO(1987-2001)





INDEX MAP FOR MAPPING

LEGEND

- Area for 1 / 10,000  
Aerophoto Mapping
- \_\_\_\_\_ Area for 1 / 5,000  
Aerophoto Mapping
- ////// Area for 1 / 1,000  
Topo - Survey Mapping

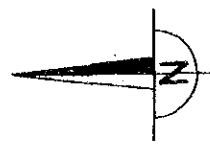
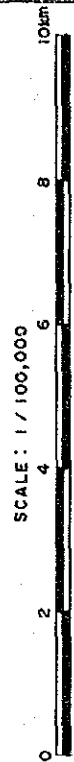
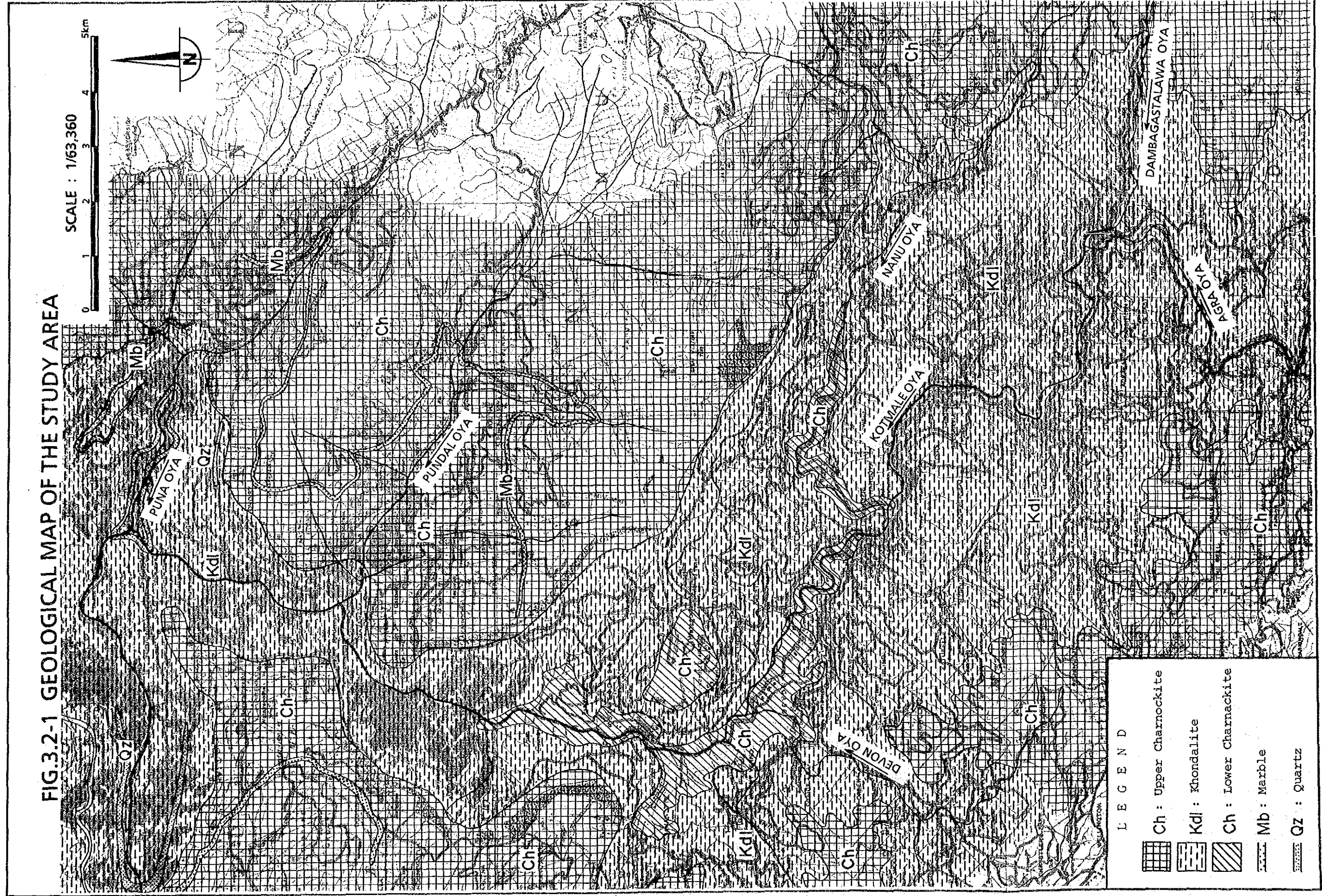







FIG.3.2-1 GEOLOGICAL MAP OF THE STUDY AREA

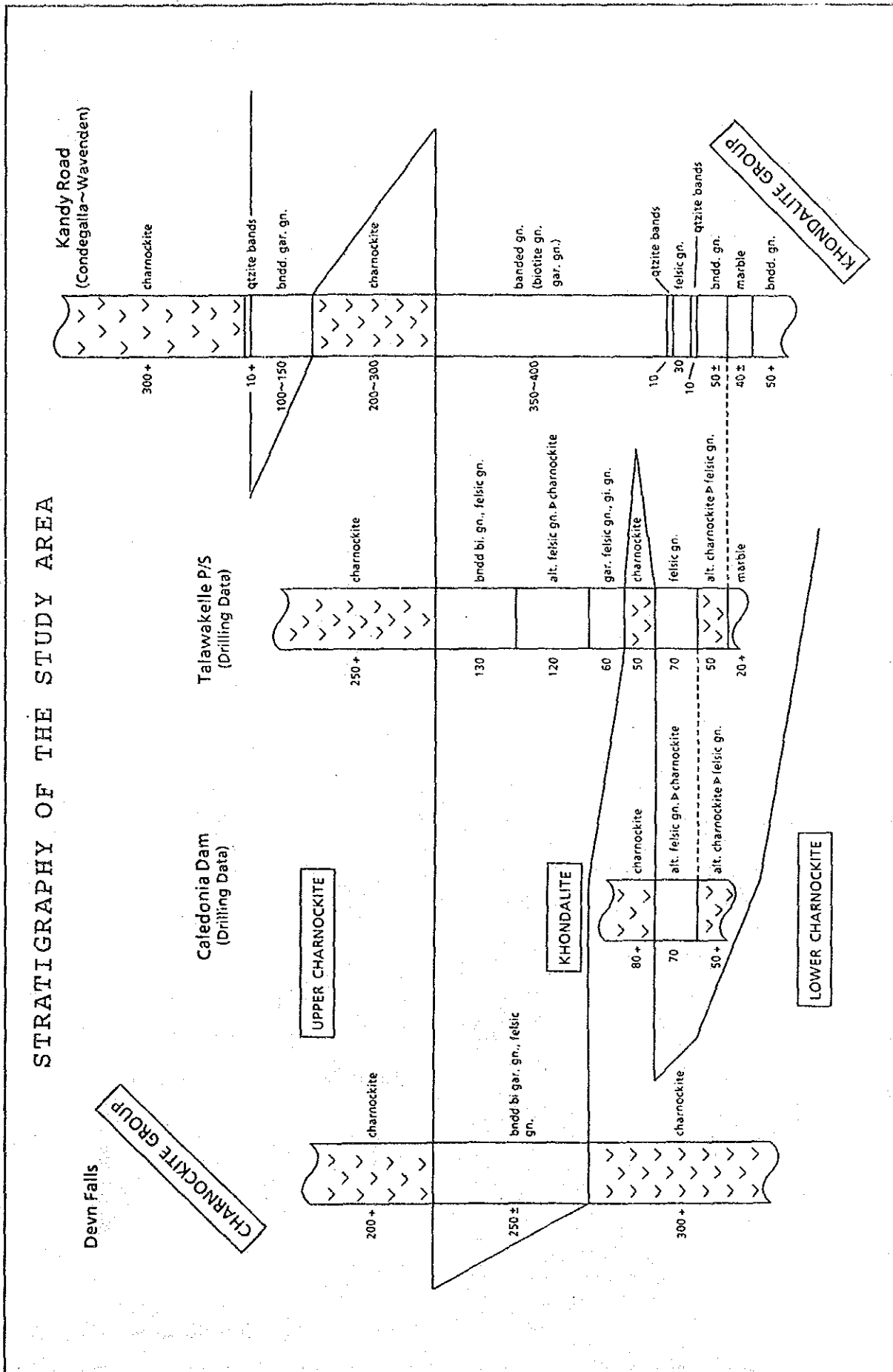


**LEGEND**

	Ch : Upper Charnockite
	Kdl : Khondalite
	Ch : Lower Charnockite
	Mb : Marble
	Qz : Quartz







### METEOROLOGICAL ZONES OF SRI LANKA

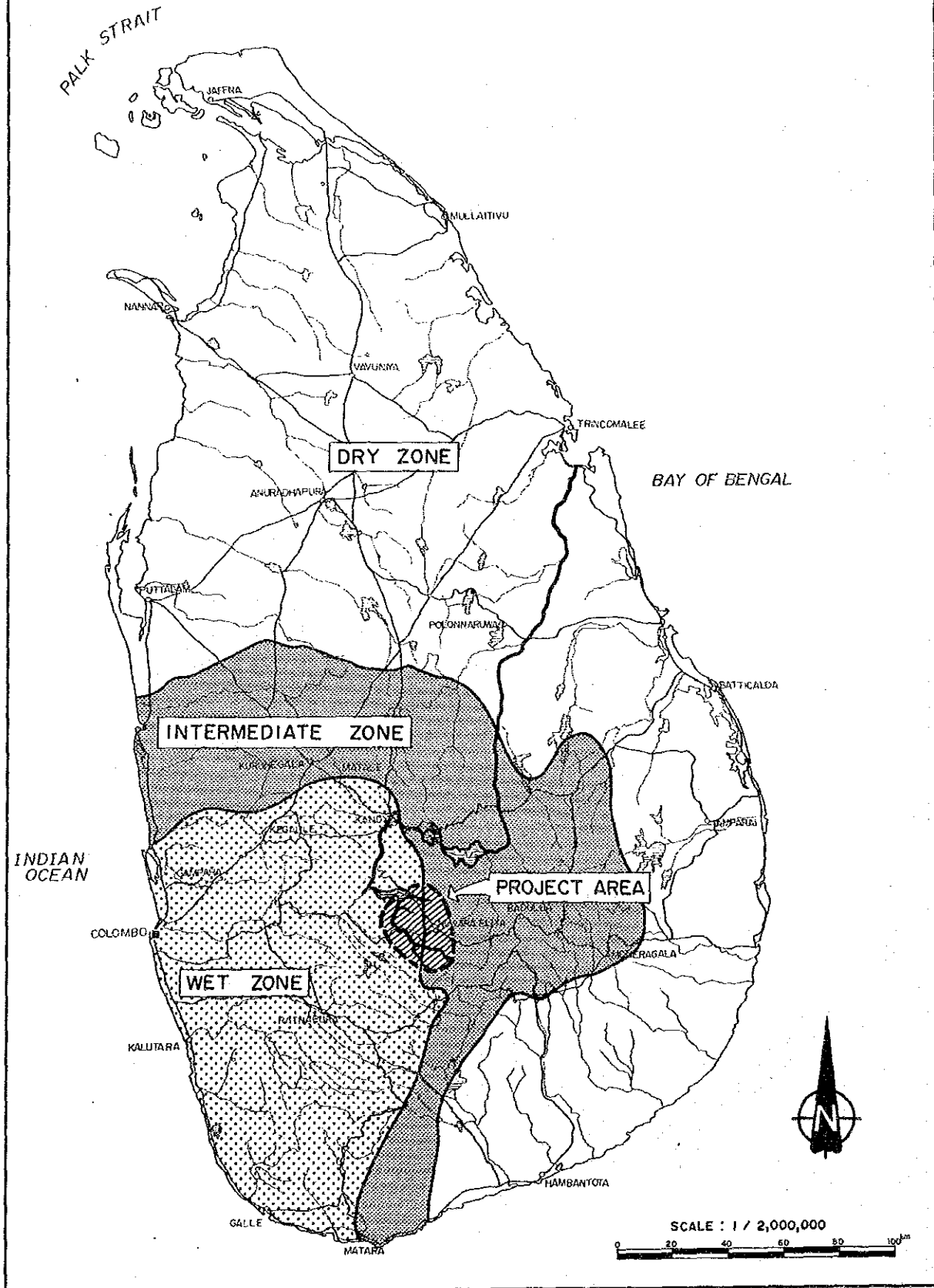


FIG.3.3-2

METEOROLOGY AT NUWARA ELIYA

Latitude : 6° 58' N  
 Longitude : 80° 46' E  
 Altitude : EL. 1,896m

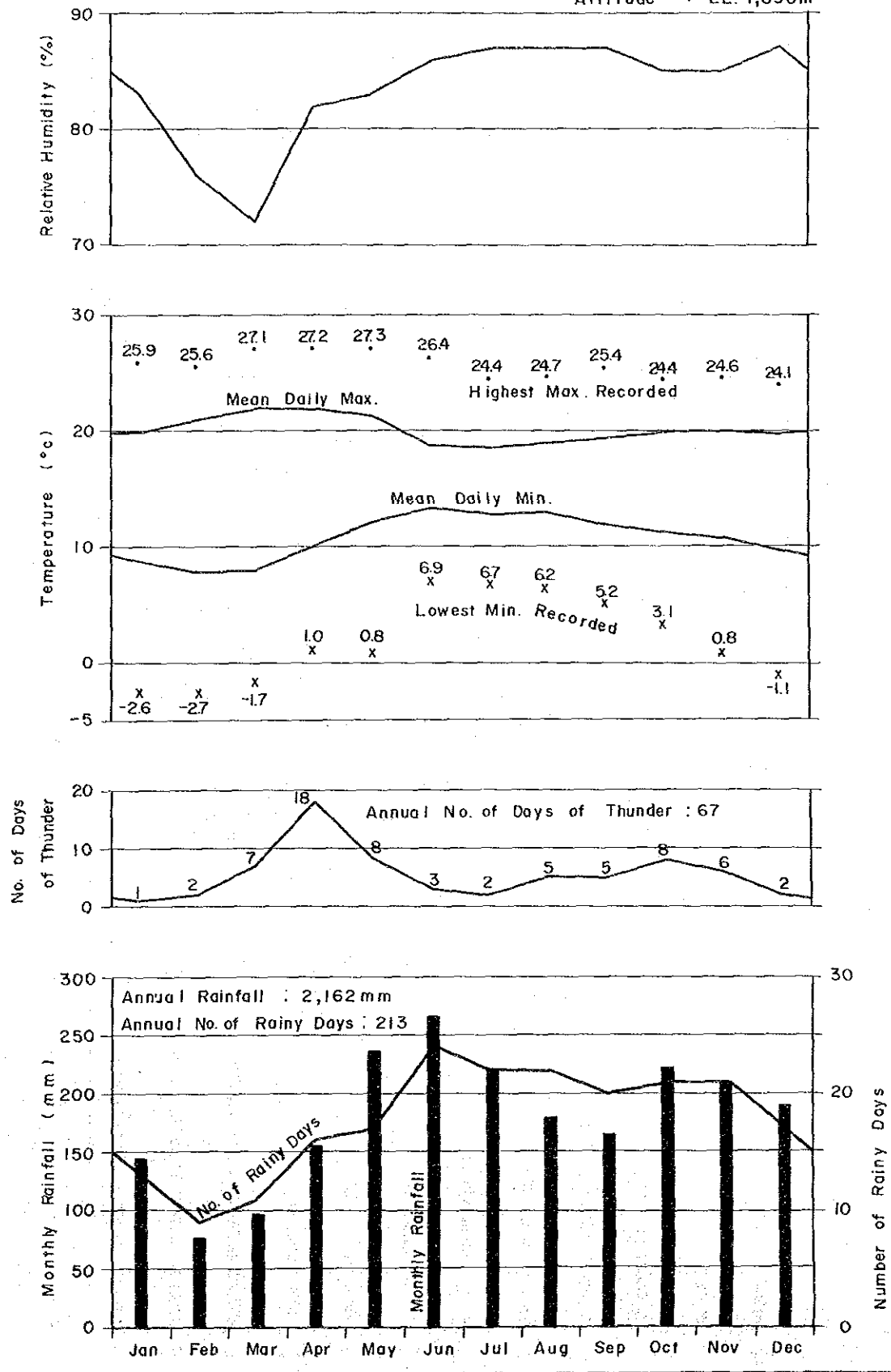
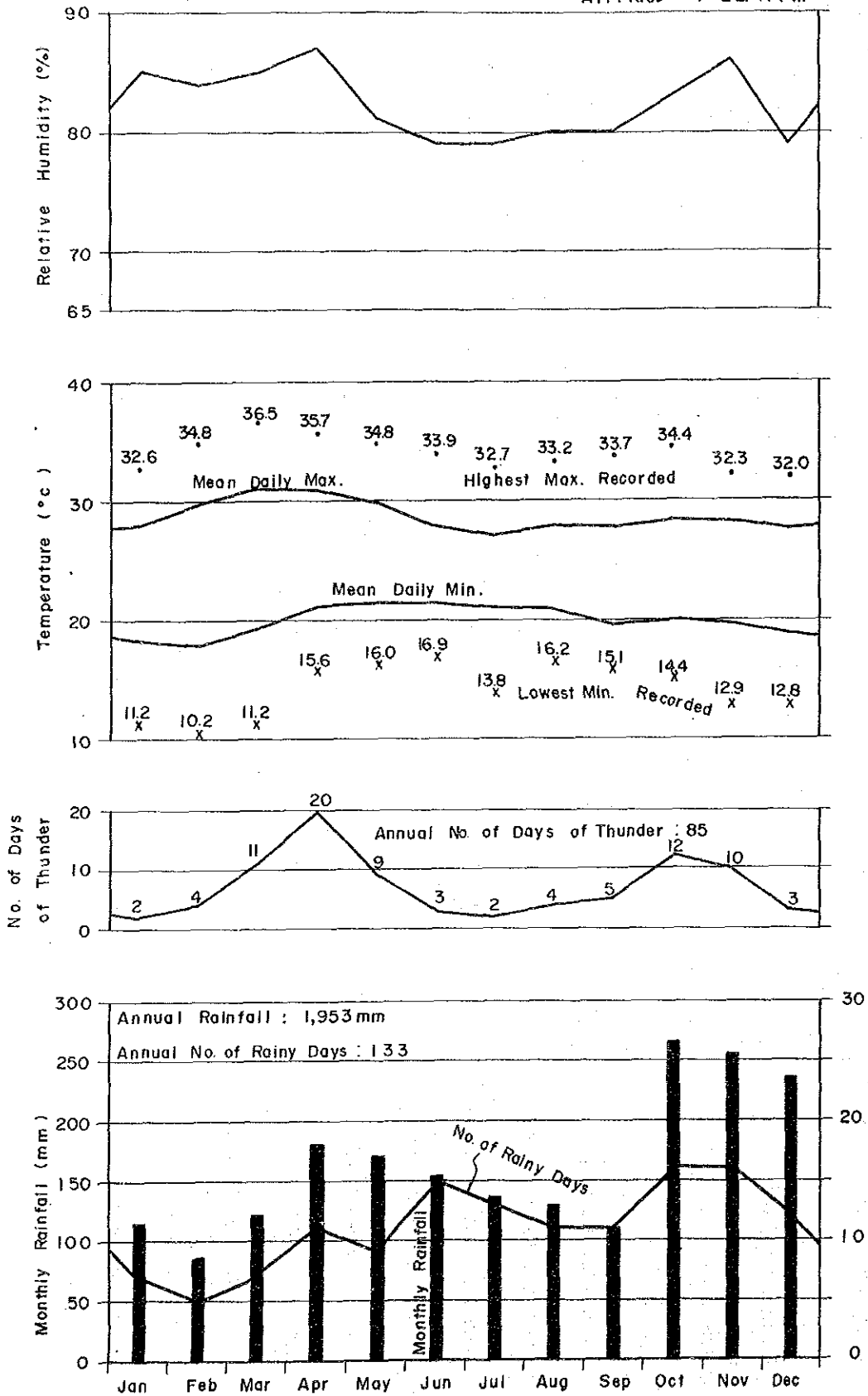


FIG.3.3-3

METEOROLOGY AT KANDY

Latitude : 7° 20' N  
 Longitude : 80° 38' E  
 Altitude : EL.477 m



MONTHLY RAINFALL DISTRIBUTION IN AND AROUND KOTMALE RIVER BASIN

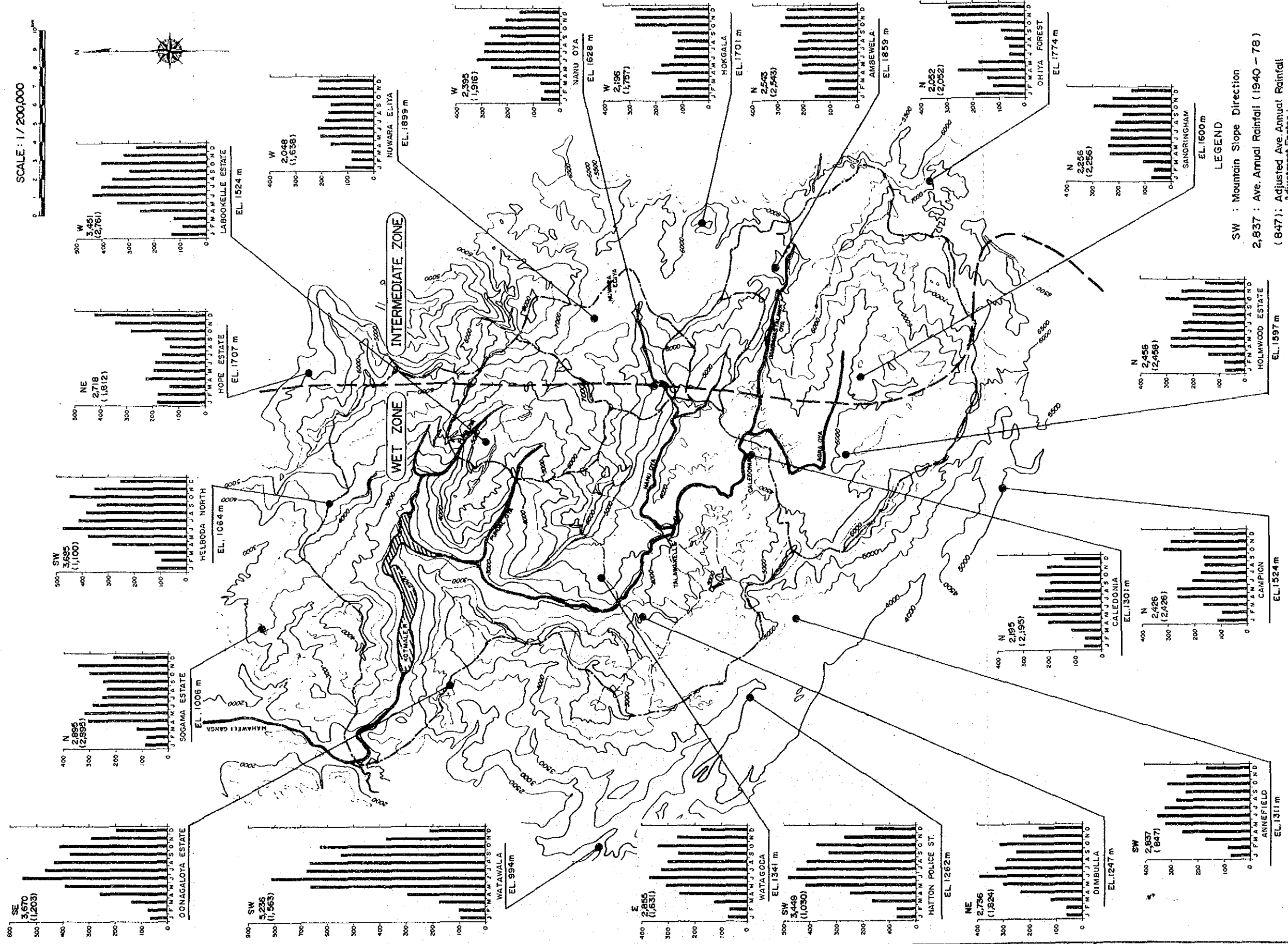


FIG.3.3-5

PROFILE OF THE KOTMALE OYA AND ITS TRIBUTARIES

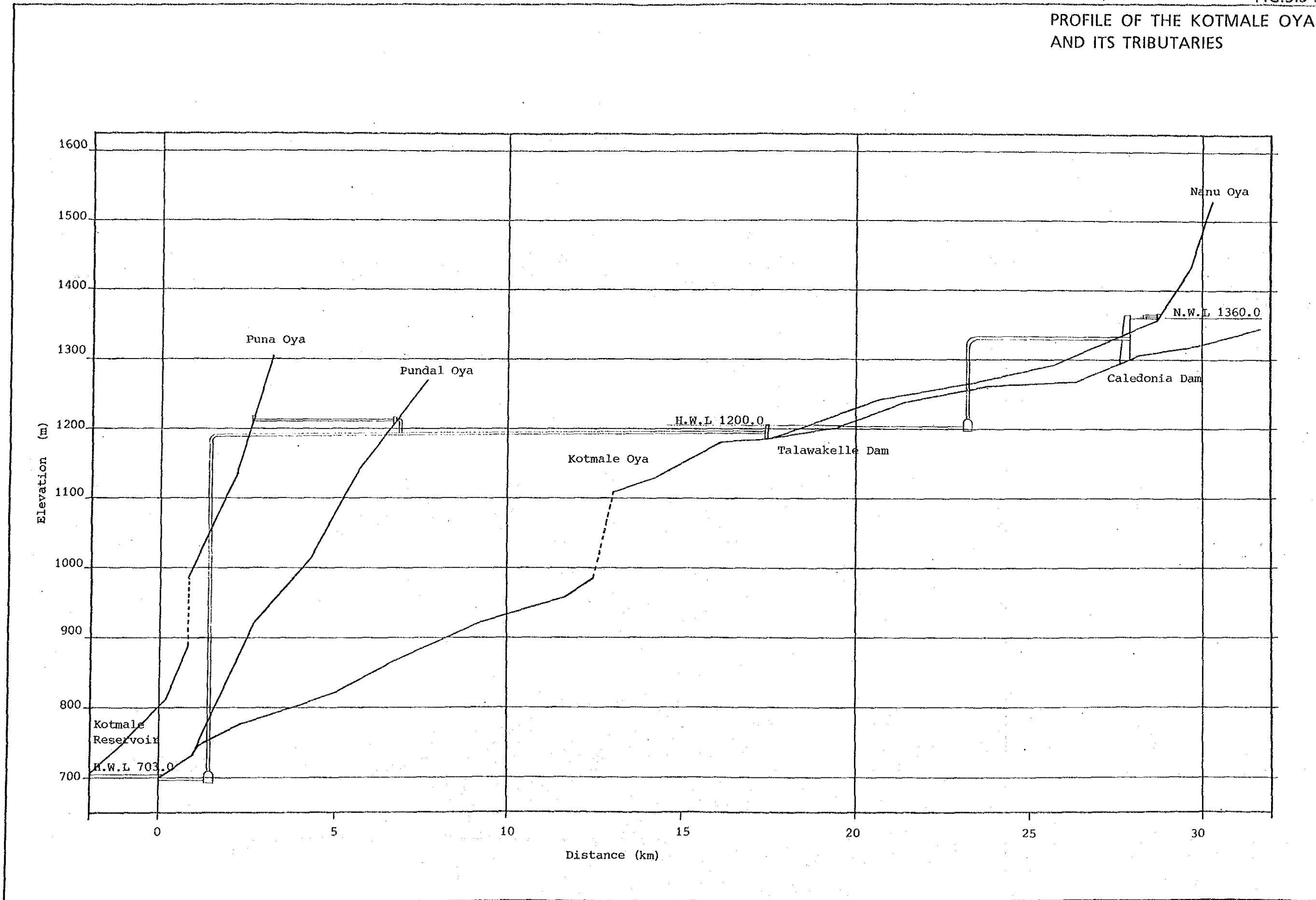
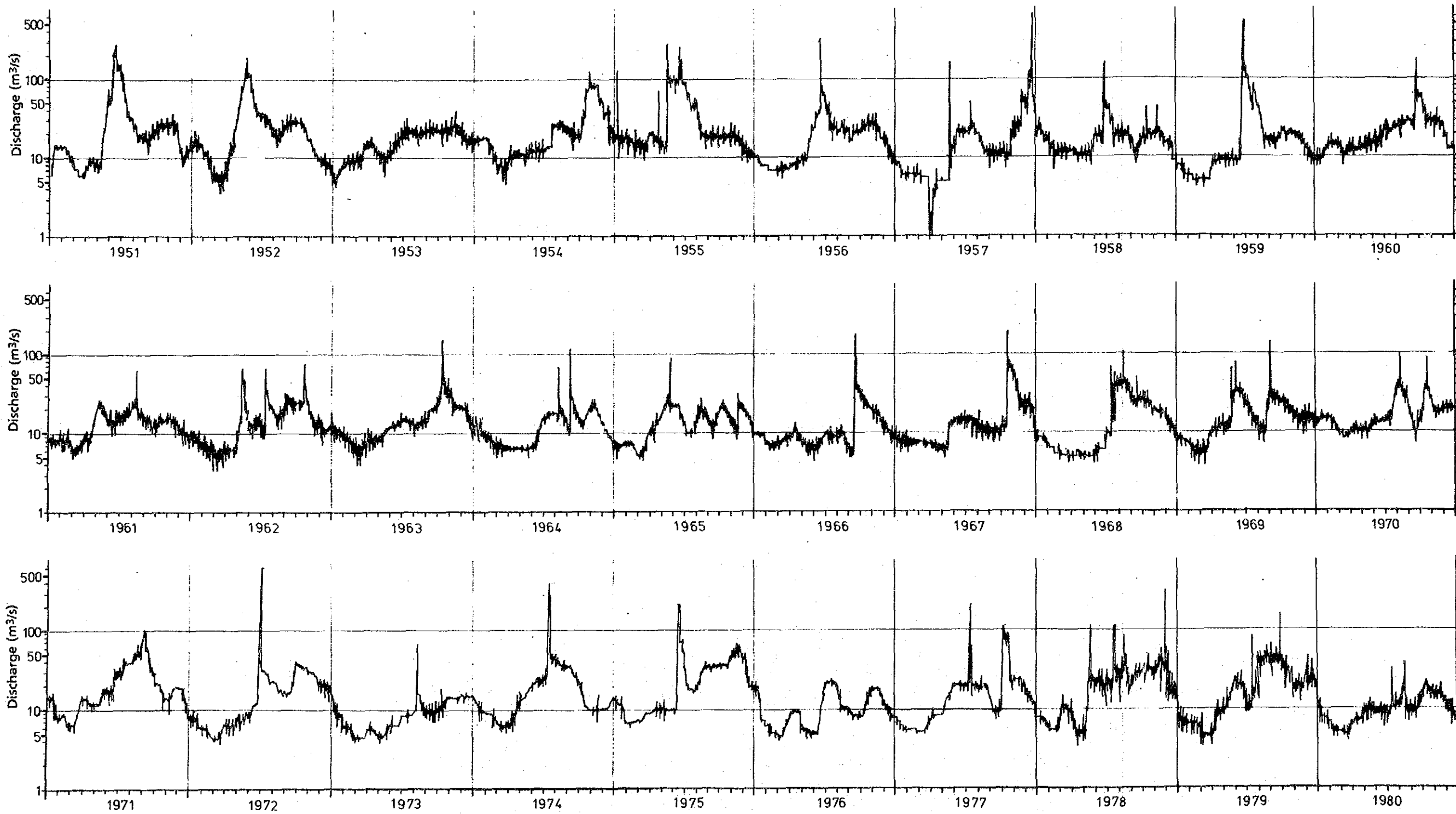


FIG.3.3-6

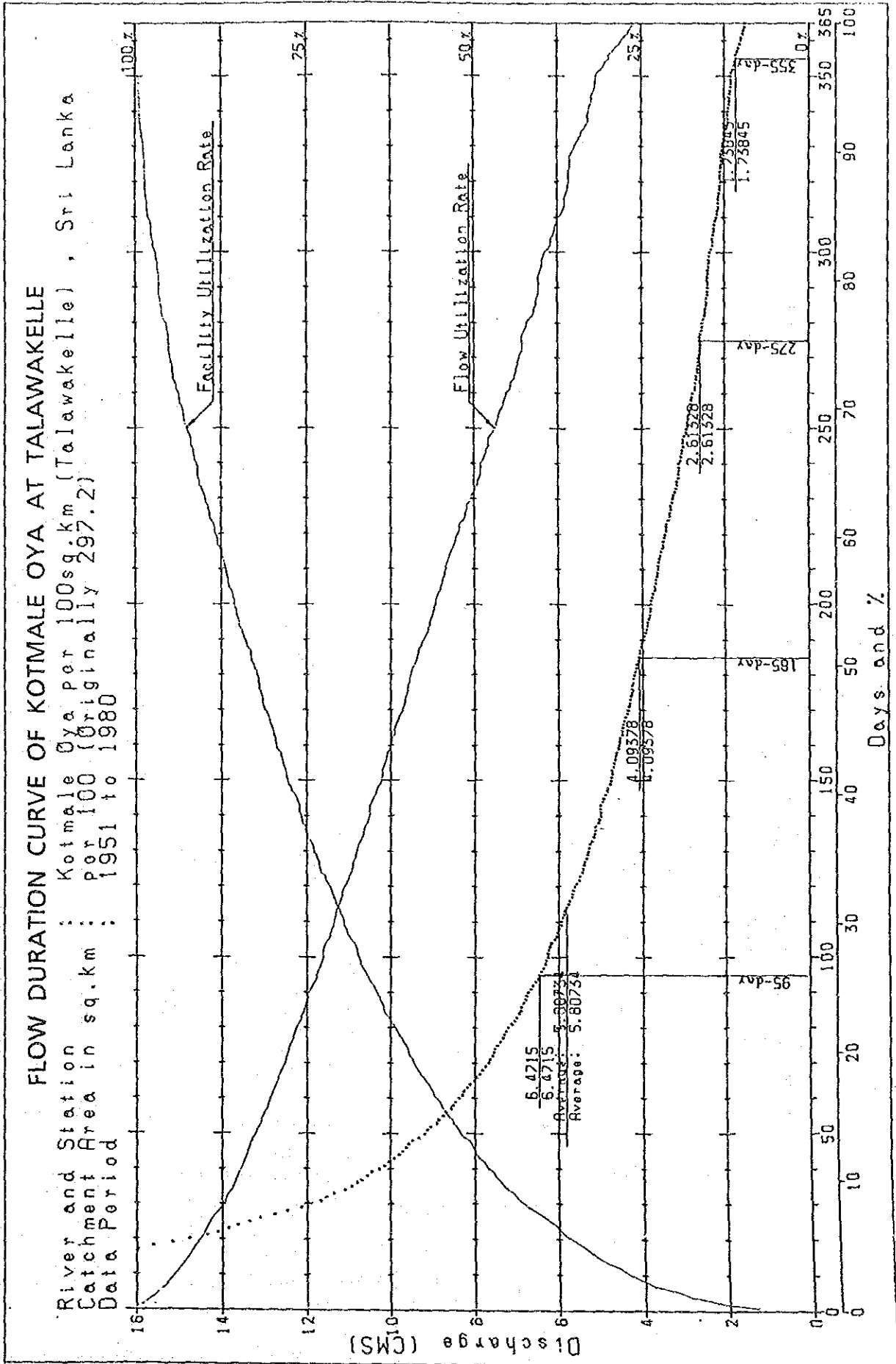
DAILY DISCHARGE HYDROGRAPH  
OF KOTMALE OYA AT TALAWAKELLE

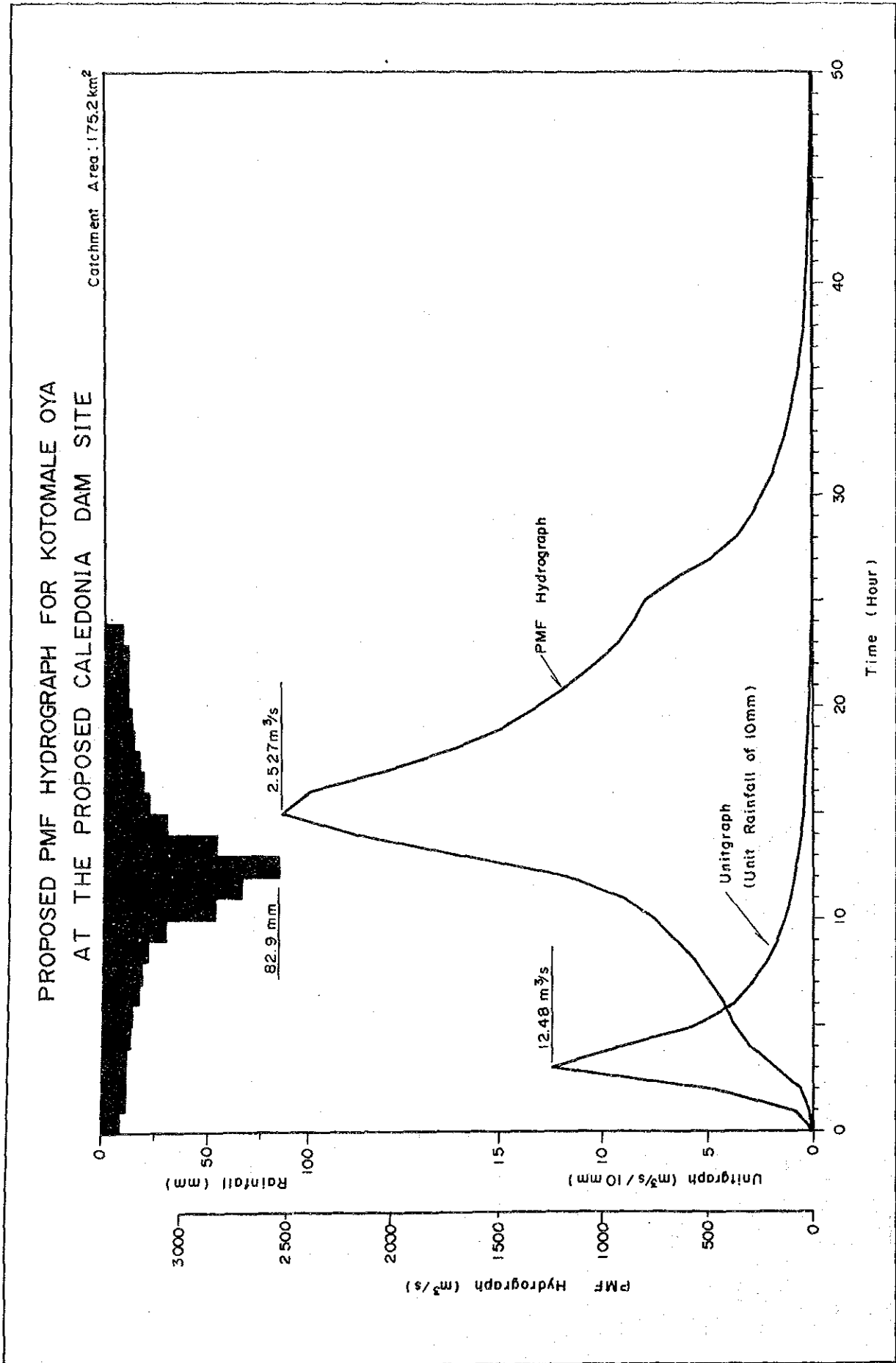
Catchment Area: 297km<sup>2</sup>  
Original Flow at Talawakelle



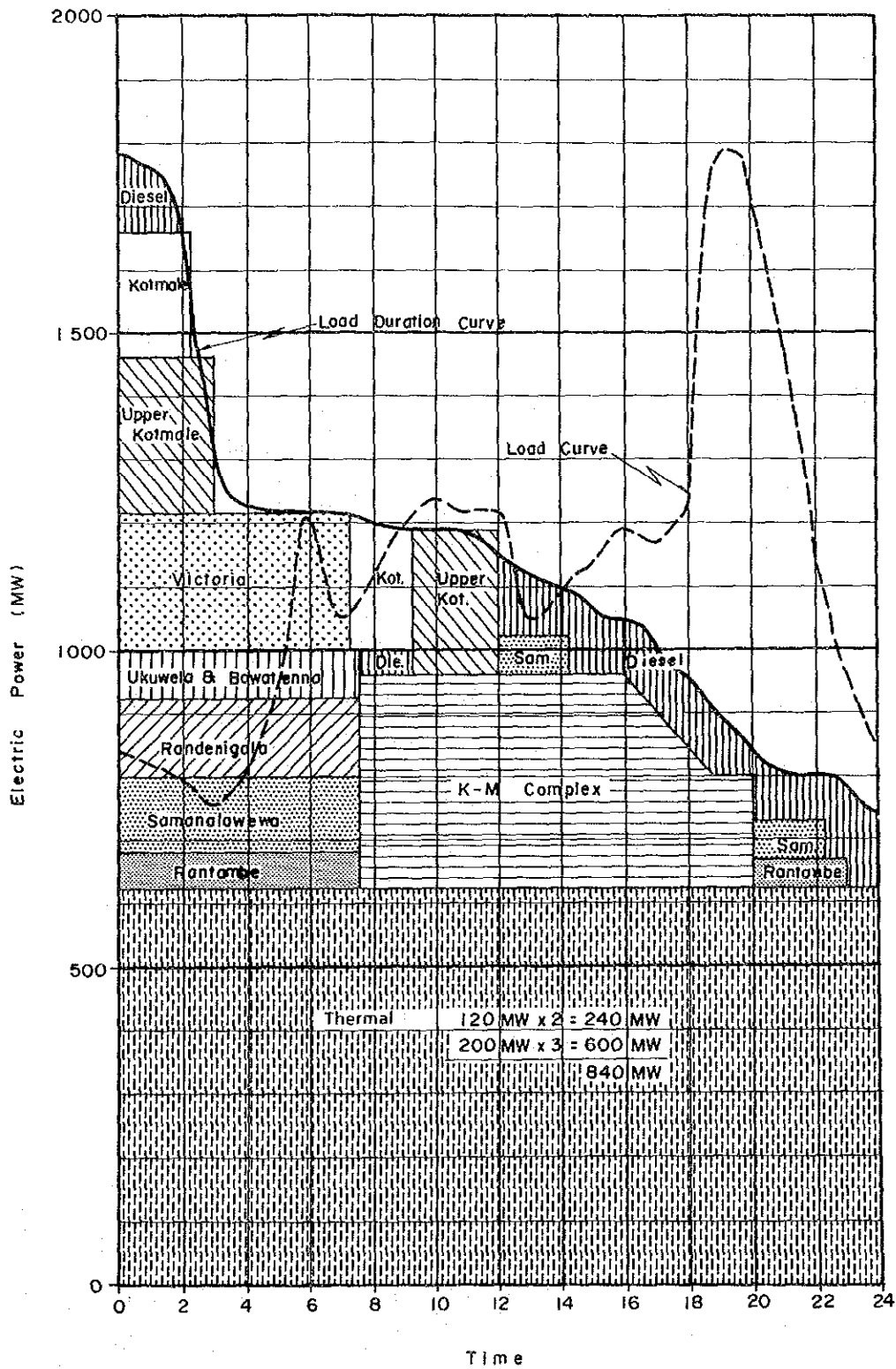






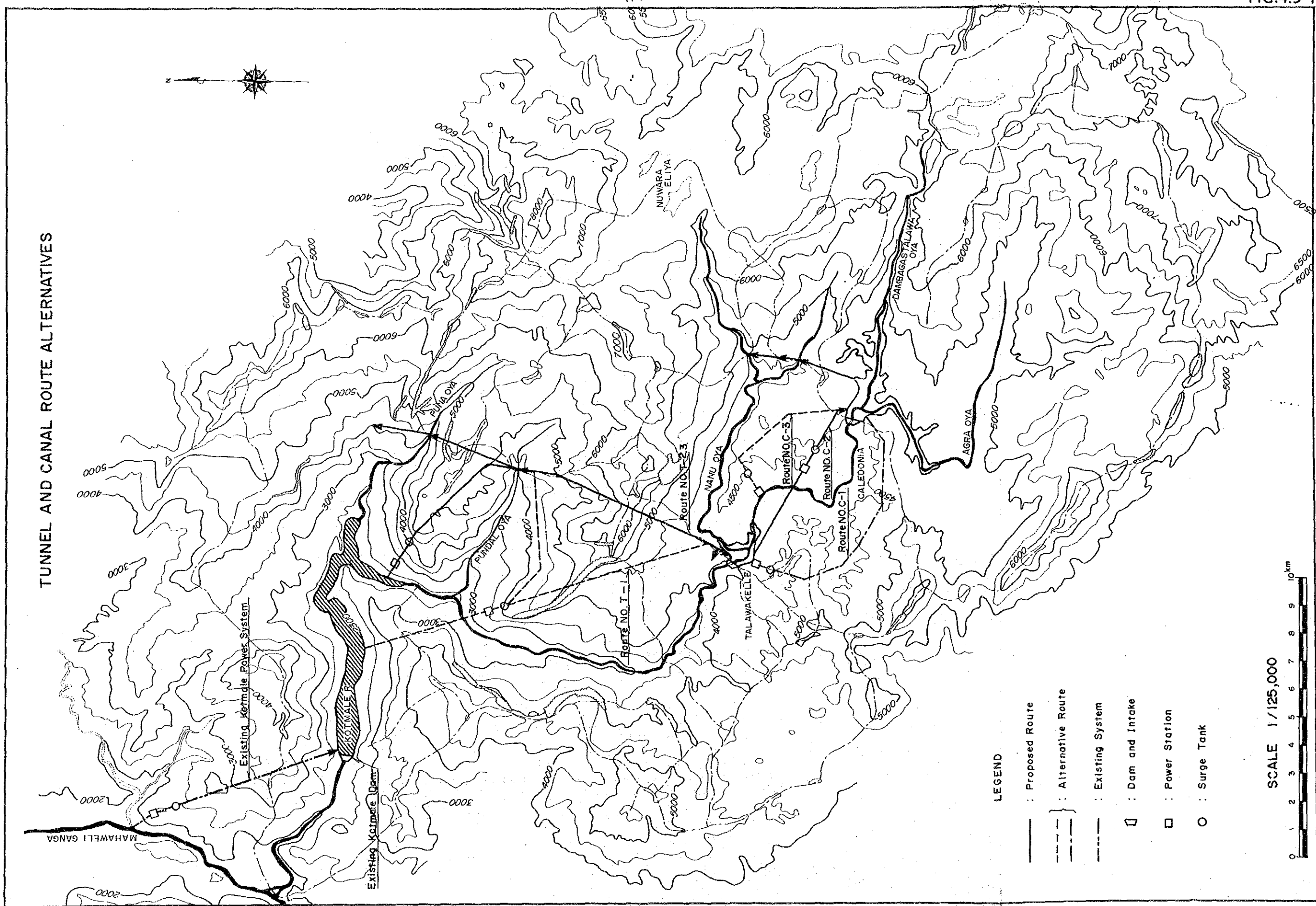


ENERGY ALLOCATION (AN EXAMPLE) BY STATIONS AS OF YEAR 2000





TUNNEL AND CANAL ROUTE ALTERNATIVES

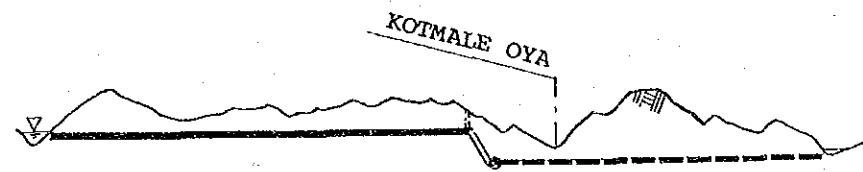


COMPARATIVE LONGITUDINAL PROFILE  
OF HEADRACE/POWER STATION/TAILRACE

CALEDONIA ROUTE C-1



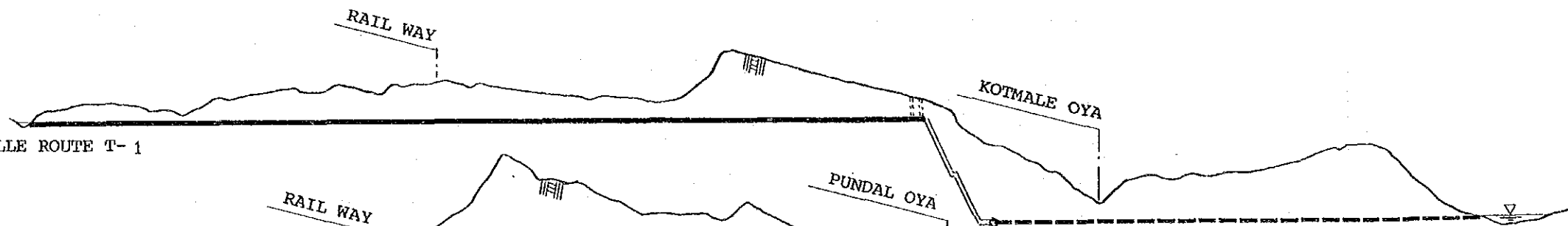
CALEDONIA ROUTE C-2



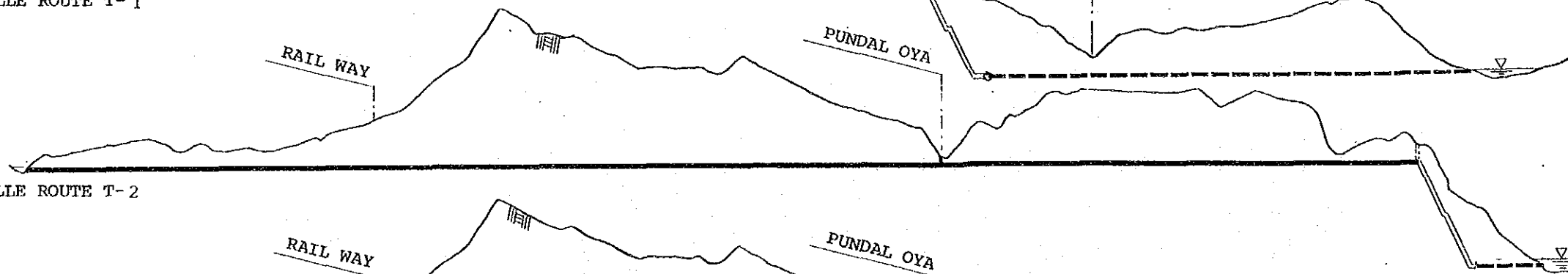
CALEDONIA ROUTE C-3



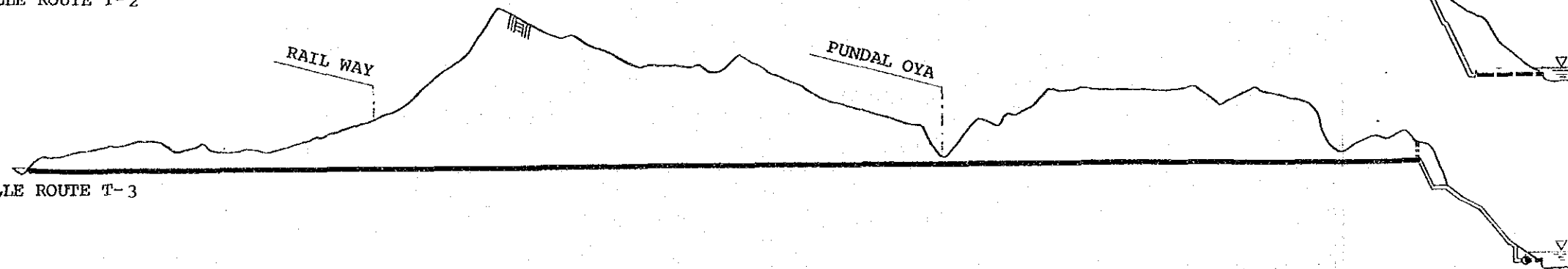
TALAWAKELLE ROUTE T-1



TALAWAKELLE ROUTE T-2



TALAWAKELLE ROUTE T-3



H=1 : 50,000  
V=1 : 25,000


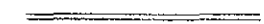

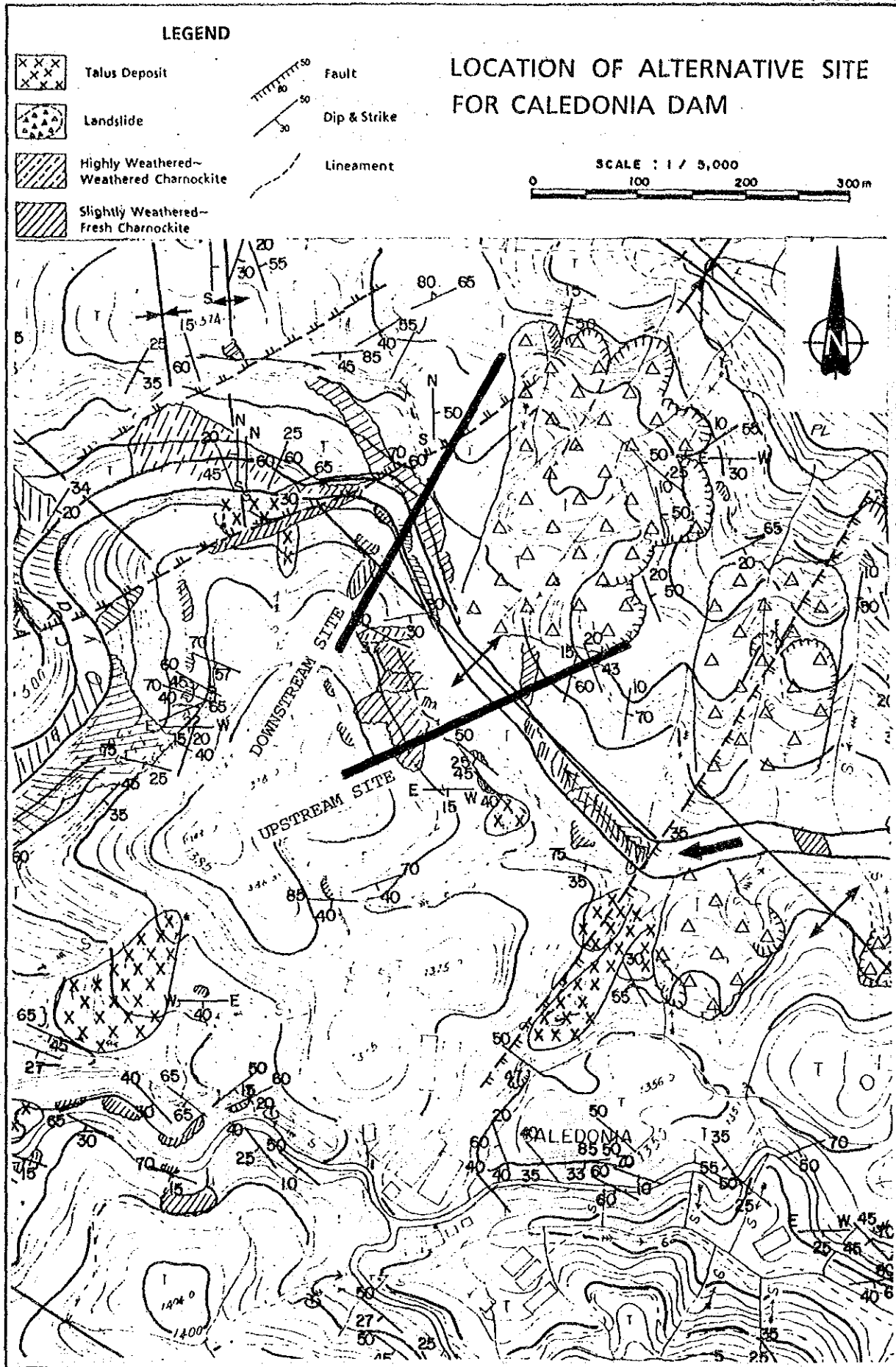
-  HEADRACE TUNNEL
-  PENSTOCK
-  TAILRACE TUNNEL
-  SURGE TANK
-  POWER STATION

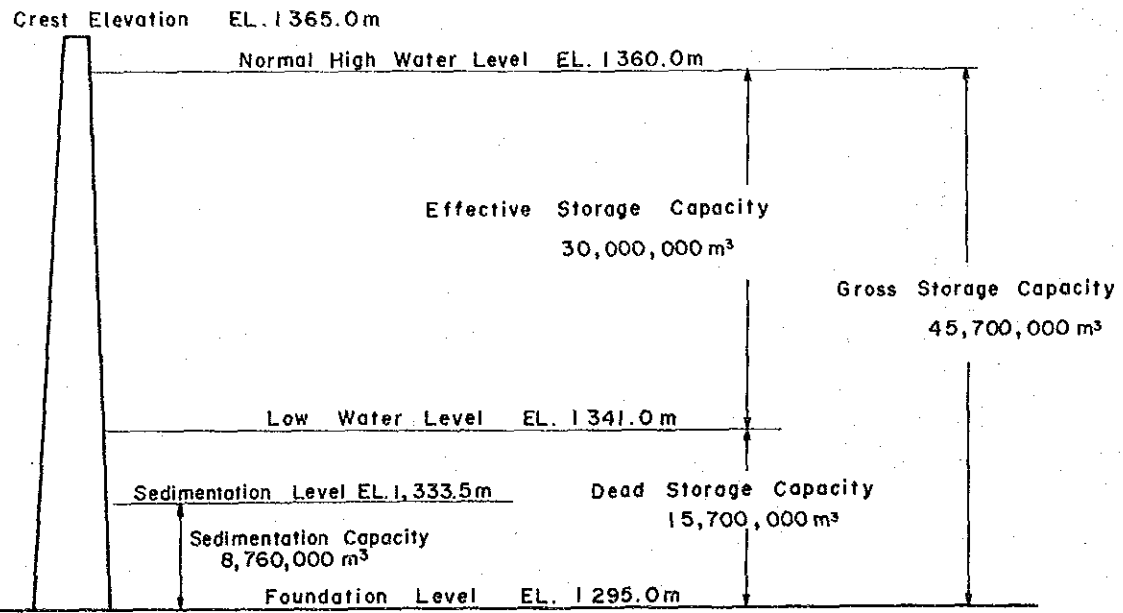




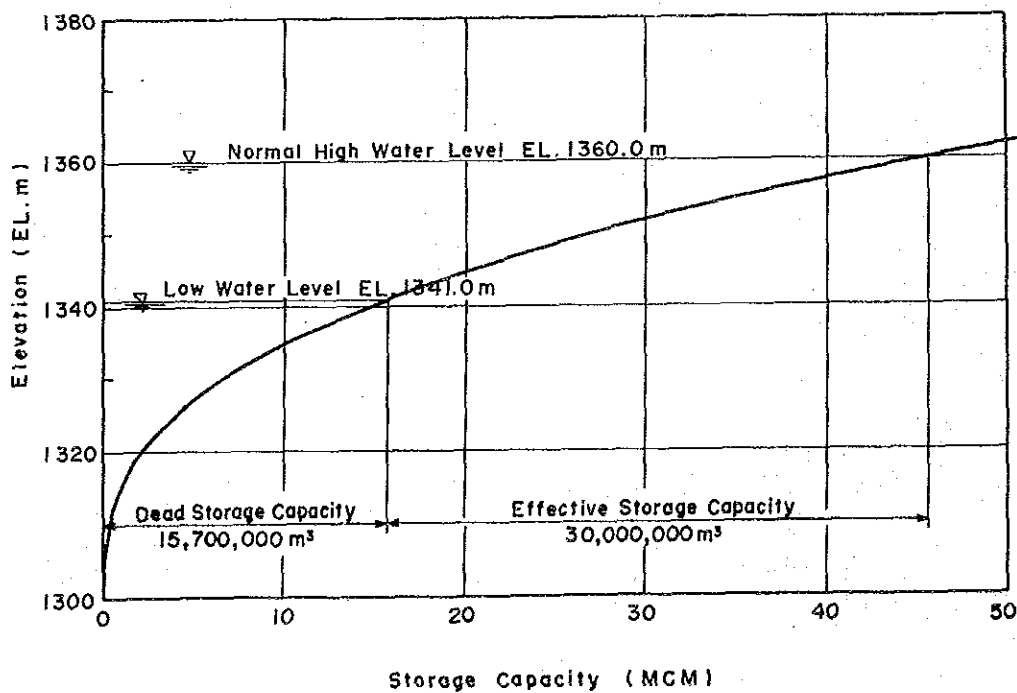
FIG.5.2-1



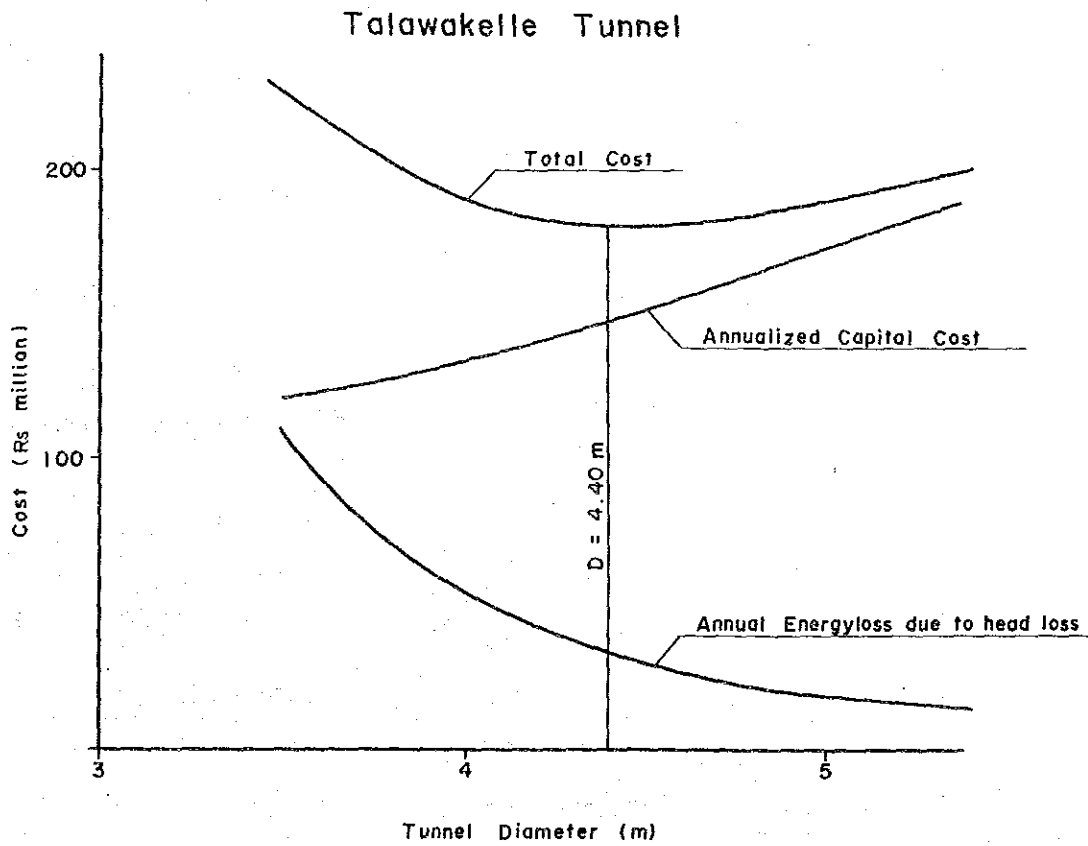
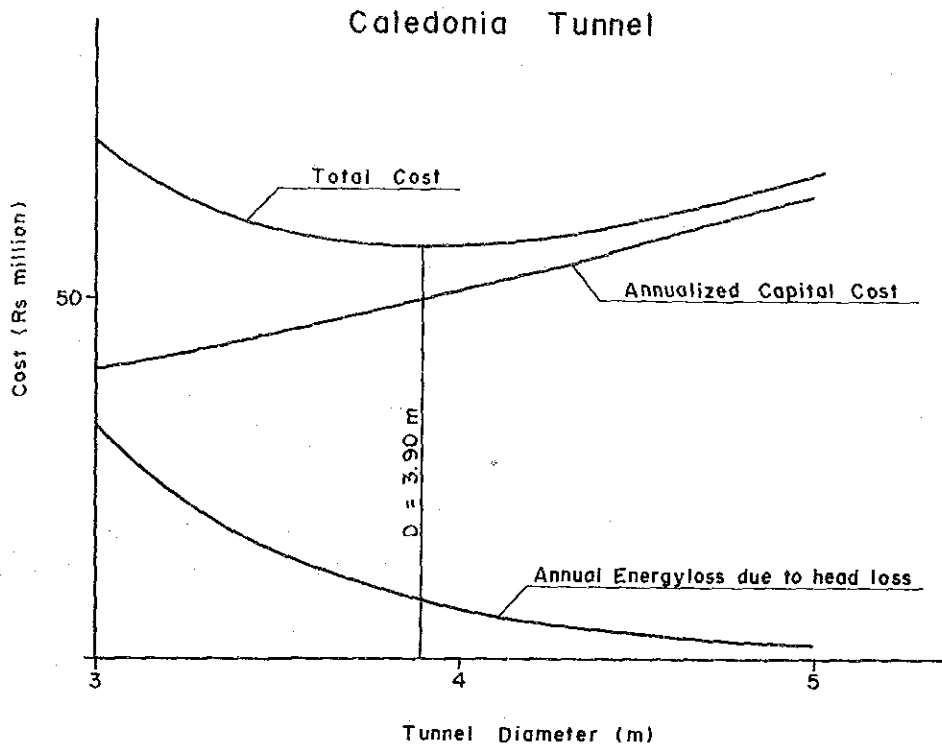
### STORAGE CAPACITY ALLOCATION FOR PROPOSED CALEDONIA RESERVOIR



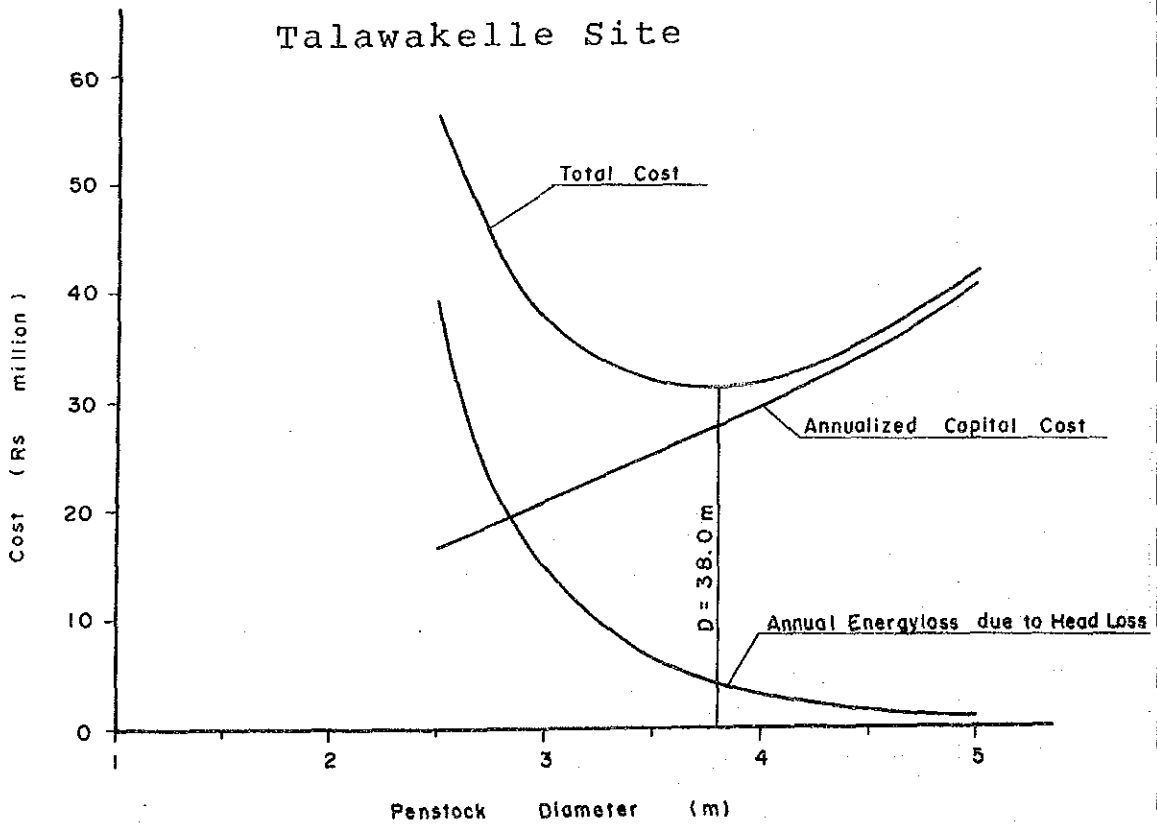
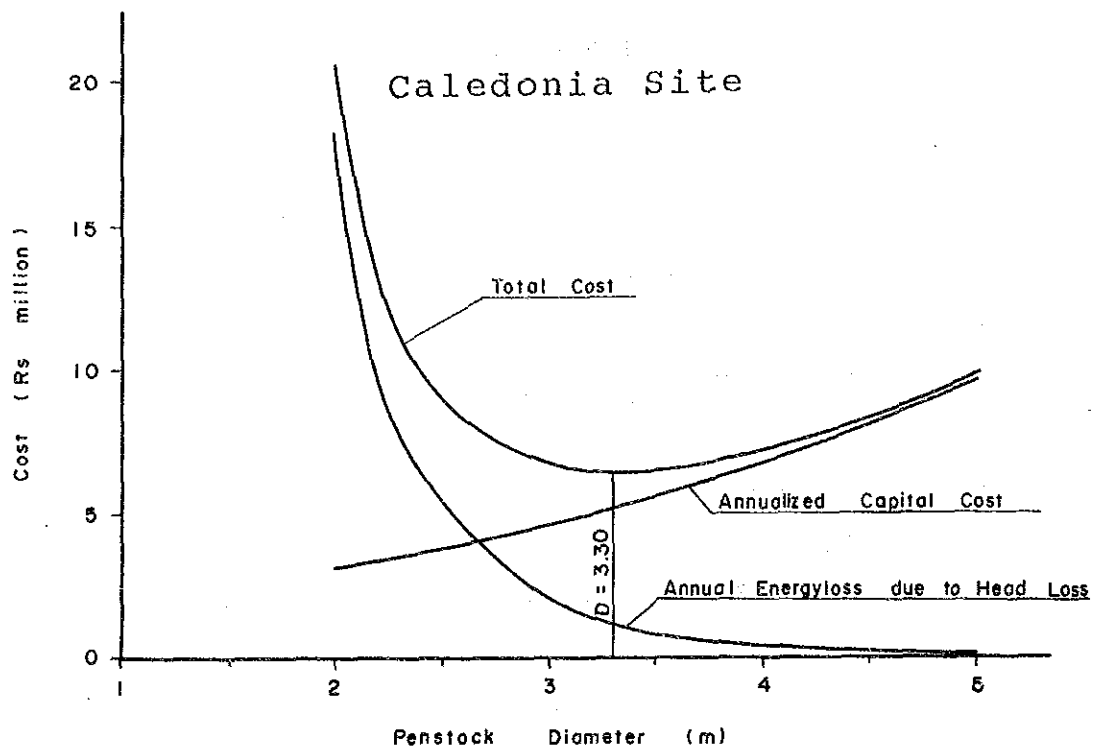
### ELEVATION – STORAGE CAPACITY FOR PROPOSED CALEDONIA RESERVOIR



DETERMINATION OF OPTIMUM TUNNEL DIAMETER



DETERMINATION OF OPTIMUM PENSTOCK DIAMETER



PROJECT CONSTRUCTION SCHEDULE

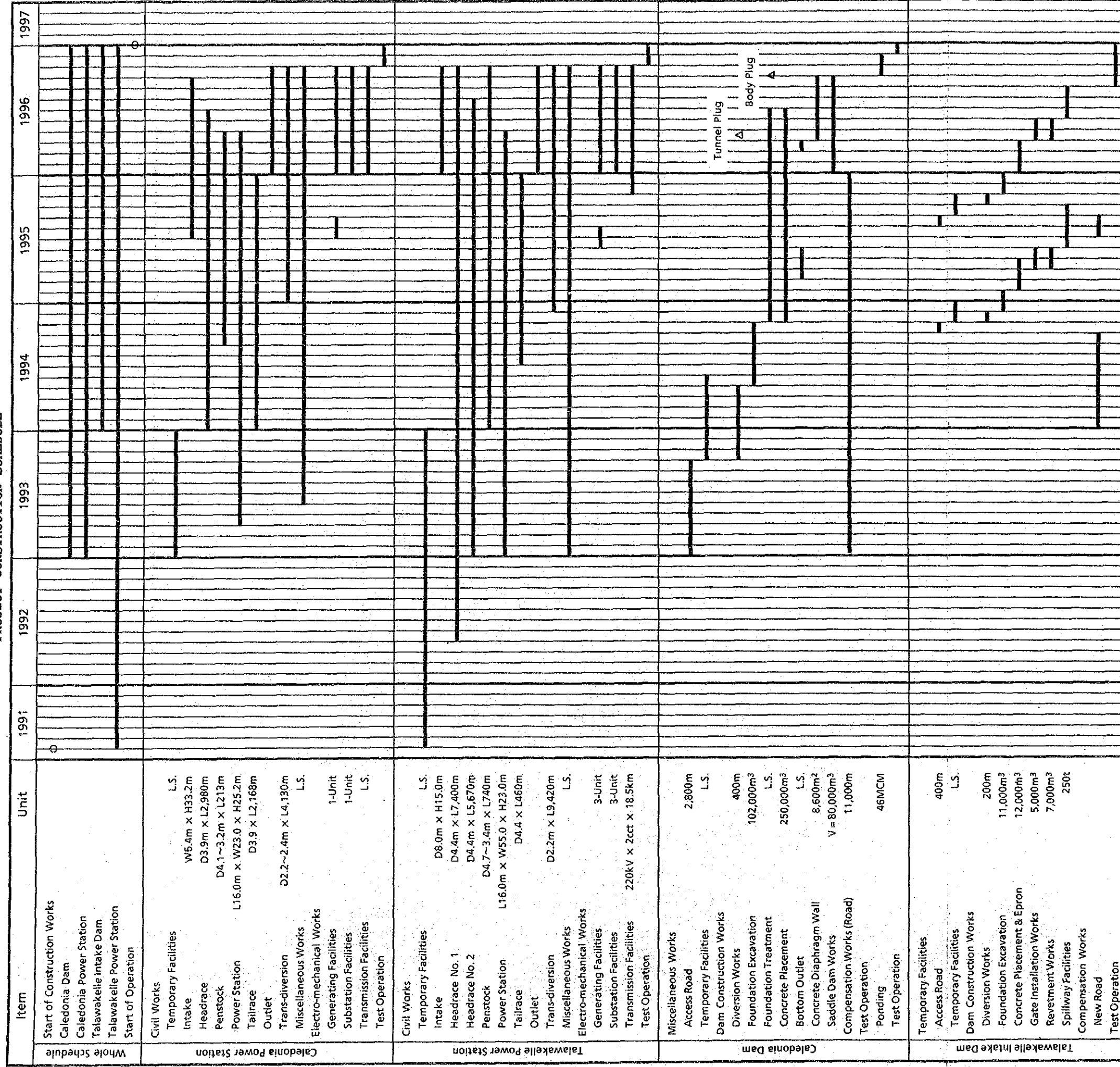


FIG.6.1-1

ACCESS ROAD MAP



