

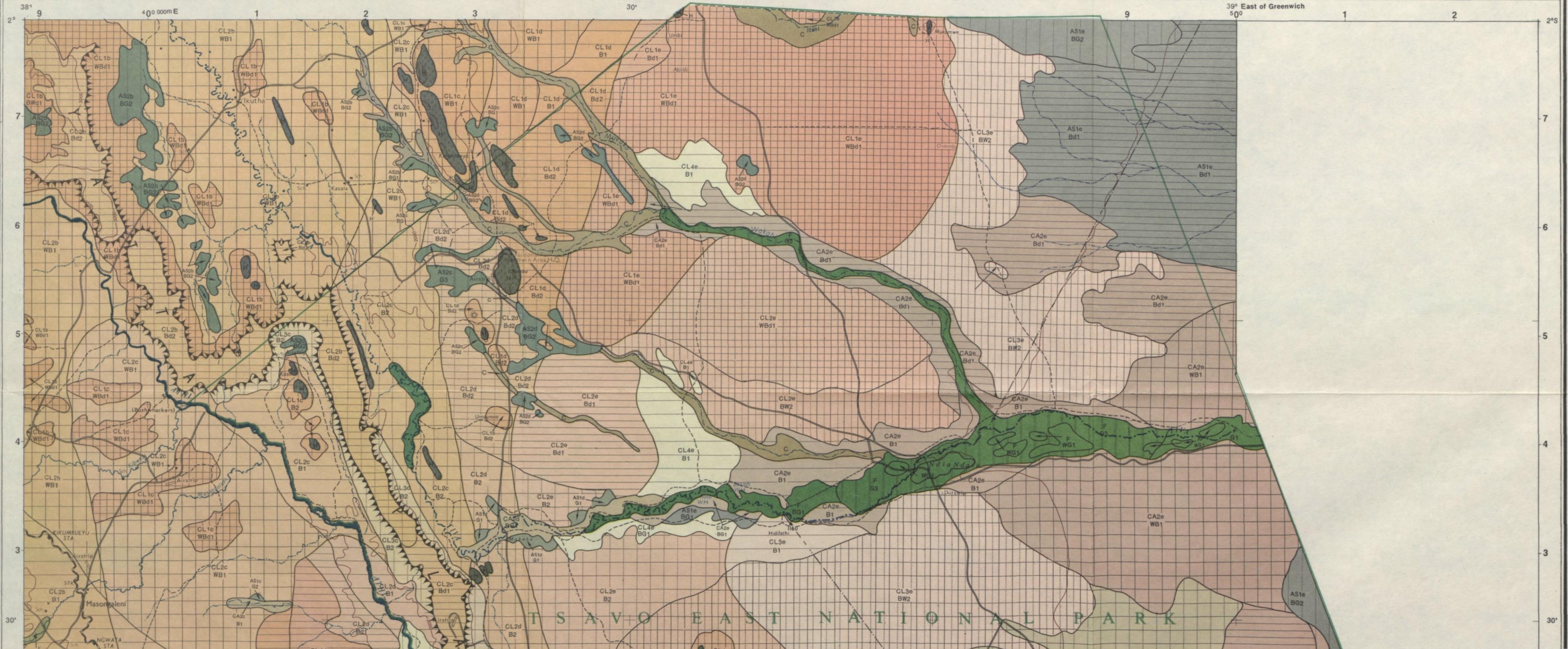
MAP SHEETS 175, 176, 183 and 184

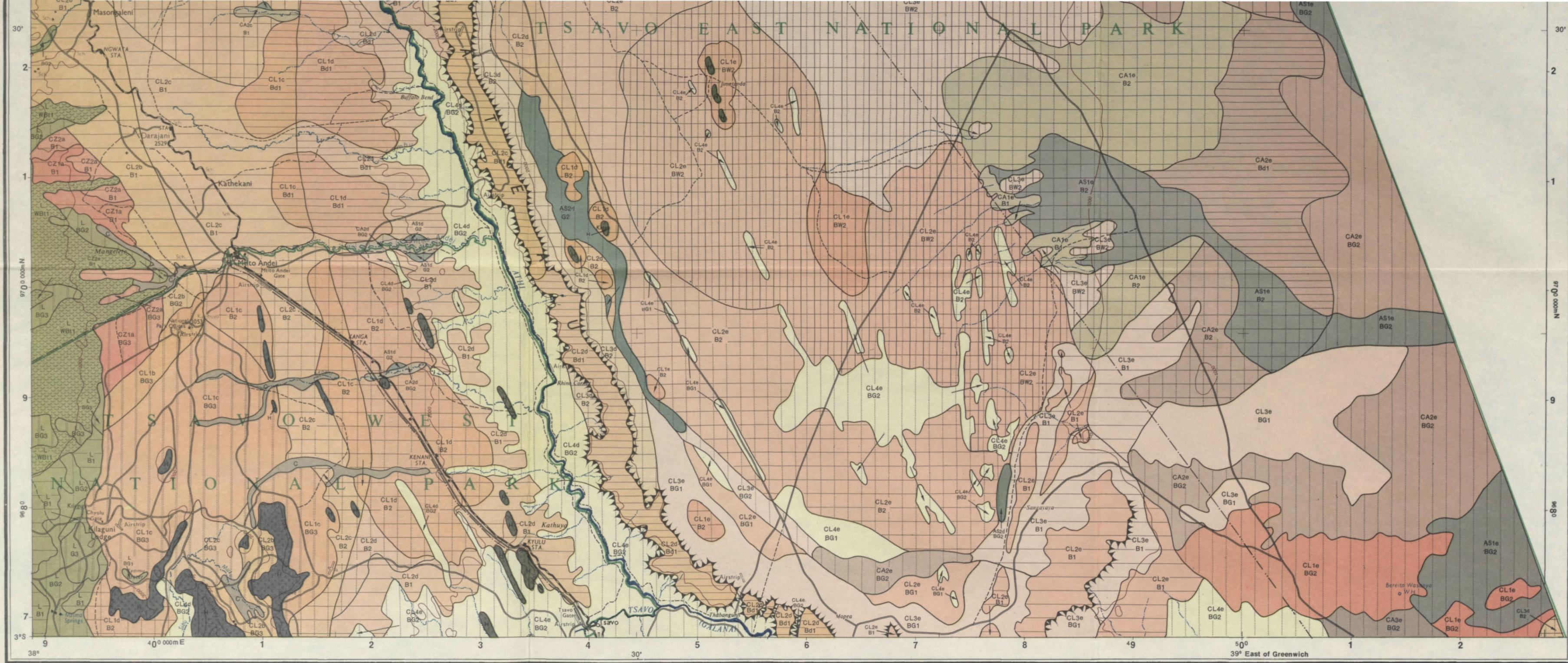
RECONNAISSANCE VEGETATION MAP OF THE MTITO ANDEI AREA

Ministry of Agriculture - Kenya Soil Survey

Appendix 3a to Report No 7 "Soils and vegetation of the Tsavo area."

Ministry of Tourism and Wildlife - Tsavo Research Station - WOTRO*

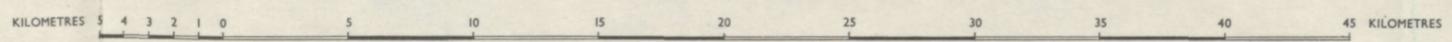




*Netherlands Foundation for the Advancement of Tropical Research
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Scale 1:250,000

Base map compiled and simplified from parts of Survey of Kenya topographical map sheets SA-37-10 and SA-37-11 scale 1:250,000



LEGEND

I. KEY TO THE FLORISTIC COMPOSITION.

CZ COMBRETUM ZEYHERI group of communities

- CZ1a Combretum zeyheri-Combretum apiculatum community
- CZ2a Combretum zeyheri-Duosperma kilimandscharicum community

CL COMMIPHORA-LANNEA group of communities

CL1 *Commiphora* spp.¹⁾-*Premna holstii*-*Strychnos decussata* community

- CL1b *Dalbergia melanoxylon* variant
- CL1c *Grewia fallax* variant
- CL1d *Sericocomopsis pallida* variant
- CL1e *Givotia gosai* variant

CL2 *Commiphora* spp.¹⁾-*Premna holstii*-*Bauhinia taitensis* community

- CL2b *Boscia angustifolia* variant
- CL2c *Grewia fallax* variant
- CL2d *Sericocomopsis pallida* variant
- CL2e *Terminalia orbicularis* variant

CL3 *Commiphora* spp.¹⁾-*Boscia coriacea*-*Cordia gharaf* community

- CL3c *Acacia nilotica* variant
- CL3d *Sericocomopsis* variant
- CL3e *Terminalia orbicularis* variant

CL4 *Commiphora* spp.¹⁾-*Caesalpinia trochae*-*Schmidtia bulbosa* community

- CL4d *Sericocomopsis pallida* variant
- CL4e *Tetrapogon bidentatus* variant

CA COMMIPHORA-ACACIA group of communities

CA1 *Commiphora* spp.¹⁾-*Dobera glabra*-*Anisotes parvifolius* community

- CA1e *Tetrapogon bidentatus* variant

CA2 *Commiphora* spp.¹⁾-*Acacia reficiens*-*Cadaba glandulosa* community

- CA2c *Grewia forbesii* variant
- CA2d *Digitaria macroblephara* variant
- CA2e *Tetrapogon bidentatus* variant

CA3 *Commiphora* spp.¹⁾-*Caesalpinia trochae*-*Cadaba glandulosa* community

- CA3e *Tetrapogon bidentatus* variant

AS ACACIA-SCHOENEFELDIA group of communities

AS1 *Acacia* spp.²⁾-*Schoenefeldia transiens*-*Maerua* sp. C community

- AS1c *Grewia forbesii* variant
- AS1d *Digitaria macroblephara* variant
- AS1e *Tetrapogon bidentatus* variant

AS2 *Acacia* spp.²⁾-*Schoenefeldia transiens*-*Enteropogon somalensis* community

- AS2b *Dalbergia melanoxylon* variant
- AS2c *Andropogon schinzii* variant
- AS2d *Digitaria rivae* variant

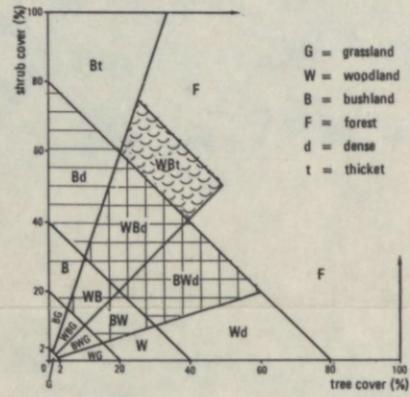
- L Undifferentiated vegetation of the lava flows and volcanic plains
- H Undifferentiated vegetation of the hills and mountains
- F Undifferentiated vegetation of the floodplains
- C Complex of several variants of community CL3, CA1, CA2 and AS1

For details of the floristic composition see table 14 and 15 in the report

1) *Commiphora* species include: *Commiphora africana*
Commiphora campestris
Commiphora holtziana
Commiphora schimperii

2) *Acacia* species include: *Acacia bussei*
Acacia reficiens
Acacia senegal
Acacia thomasi
Acacia zanzibarica

II KEY TO THE VEGETATION STRUCTURE



III KEY TO THE GRASSCOVER

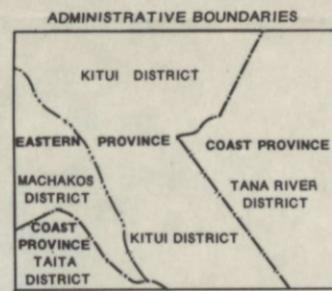
- 1 less than 20% cover by perennial grasses
- 2 20-50% cover by perennial grasses
- 3 50-100% cover by perennial grasses

IV KEY TO THE ECOLOGICAL INDICATION OF THE VEGETATION COMMUNITIES AND VARIANTS

COMMUNITIES	ECOLOGICAL ZONE					SOIL CONDITIONS
	IV	Va	Vb	Vla	Vlb	
CZ1a	CL1b	CL1c	CL1d	CL1e		well drained, deep, very acid soils
CZ2a	CL2b	CL2c	CL2d	CL2e		well drained, deep, moderately acid soils
		CL3c	CL3d	CL3e		well drained, deep, slightly acid soils
			CL4d	CL4e		well drained, shallow, neutral soils
				CA1e		well drained, deep, neutral soils
			CA2c	CA2d	CA2e	well drained to imperfectly drained, deep, neutral soils, often calcareous and/or saline in the subsoil
				CA3e		well drained to imperfectly drained, shallow to deep, slightly alkaline soils
			AS1c	AS1d	AS1e	imperfectly drained to poorly drained, deep, alkaline soils, often calcareous and saline
			AS2b	AS2c	AS2d	poorly drained, deep, alkaline, calcareous soils
			L			well drained, shallow to deep, neutral to slightly alkaline soils of the volcanic plains and lava flows
			H			well drained, shallow to moderately deep, acid to neutral soils of the hills and mountains
			F			well drained to poorly drained, deep, neutral to slightly alkaline, stratified soils of the floodplains
						VARIANTS

- group of communities (see "Key to the floristic composition")
- vegetation community
- vegetation variant
- grasscover (see "Key to the grasscover")
- vegetation structure (see "Key to the vegetation structure")

- vegetation boundary
- 625 ha
- all weather road
- railway
- railway station
- bridge
- motorable track
- provincial boundary
- district boundary
- park boundary
- building
- school
- river
- water hole
- contours V.I. 1000 ft.
- scarp
- hill top
- crater



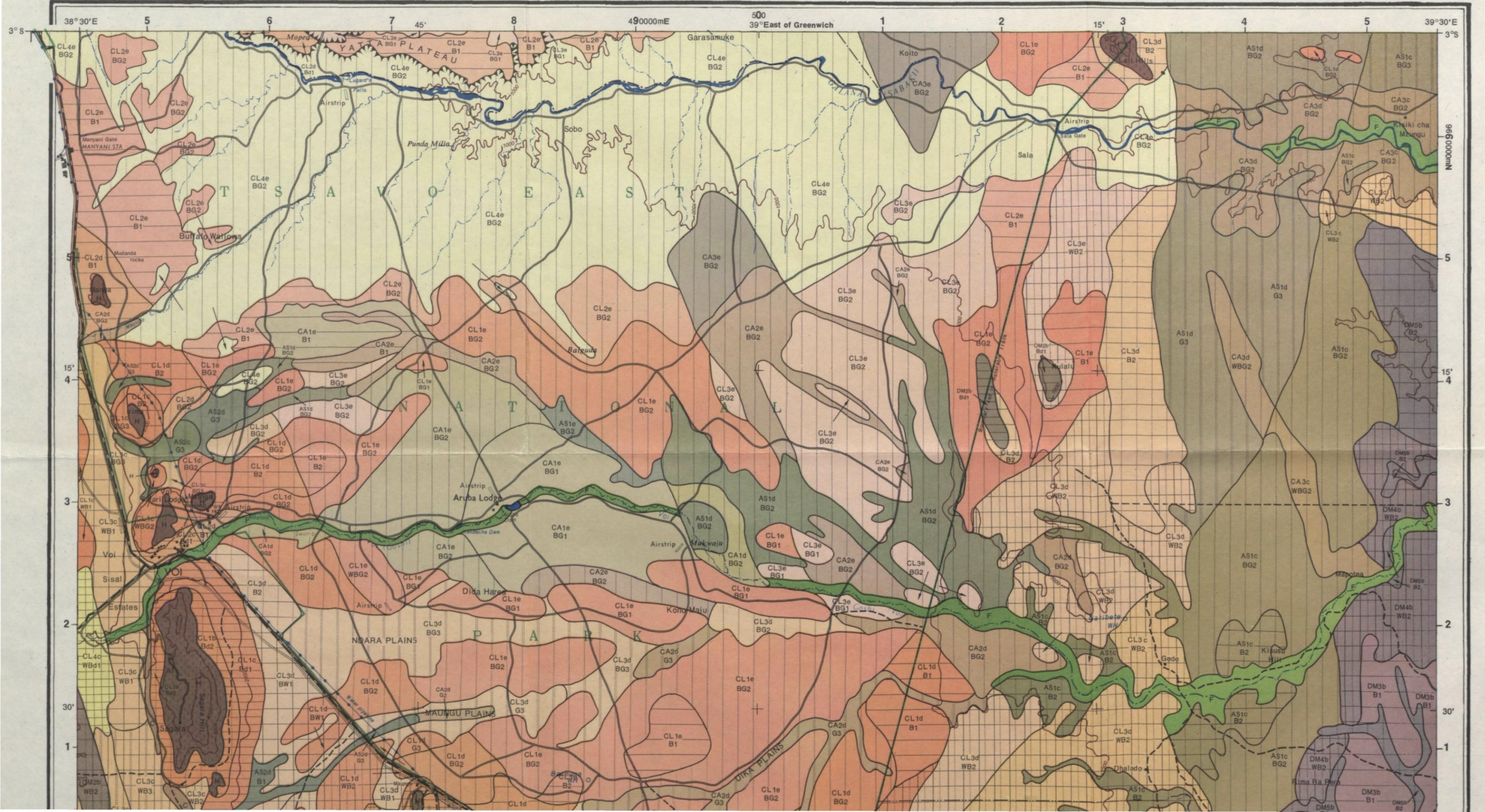
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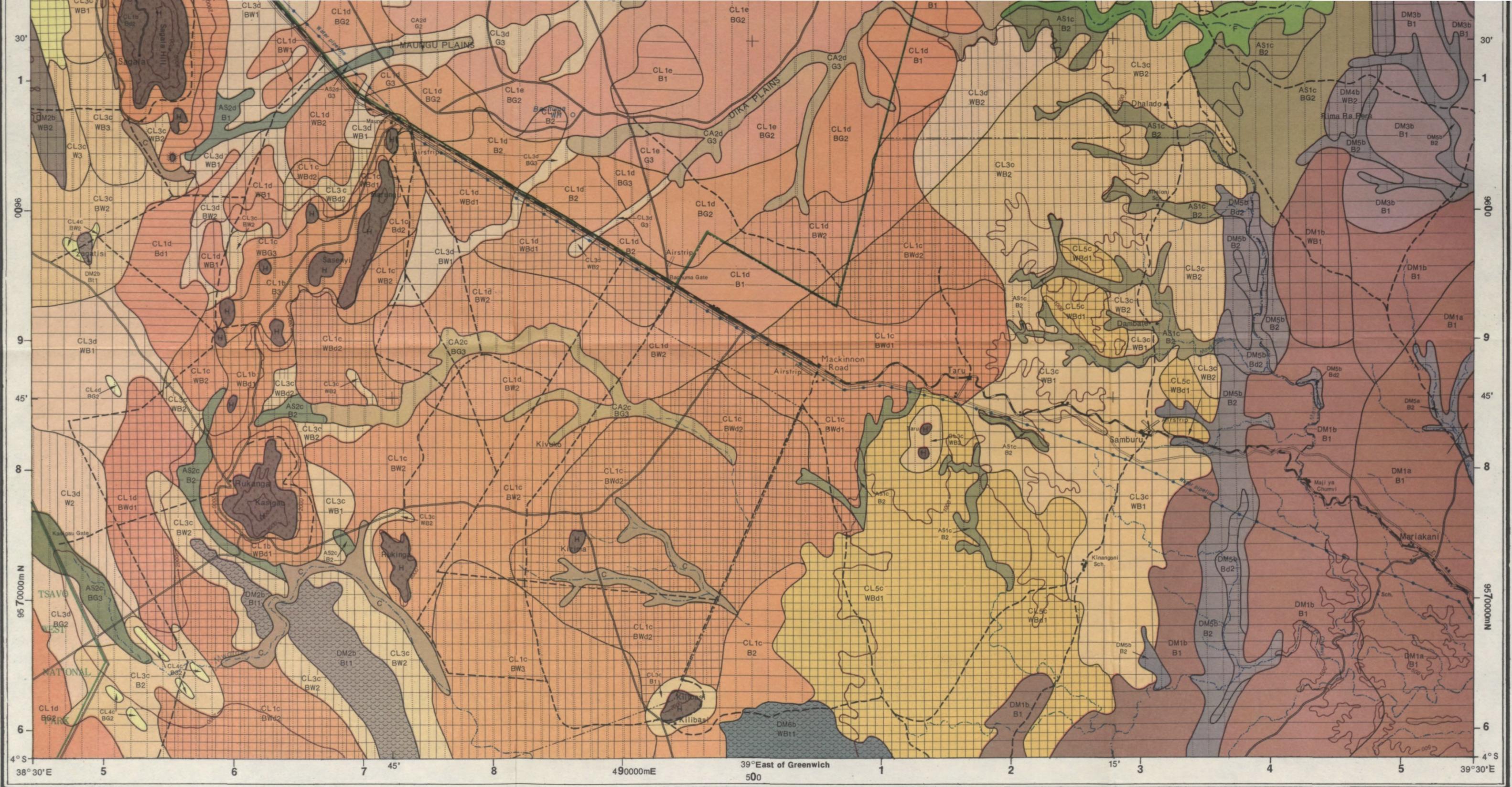


VEGETATION SURVEY AND MAP PREPARATION

- vegetation survey and map compilation (1976-1978) W. van Wijngaarden¹⁾
- vegetation correlation W. van Wijngaarden¹⁾
- map correlation I. S. Zonneveld²⁾
- cartography P.M. Maingi³⁾
- D.M. Olulo³⁾

1) Tsavo Research Station - WOTRO
2) ITC-Enschede
3) Kenya Soil Survey



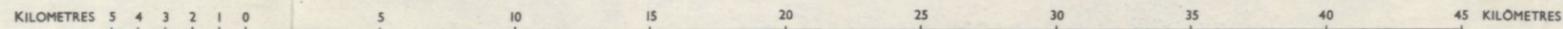


*Netherlands Foundation for the Advancement of Tropical Research

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Base map compiled and simplified from parts of Survey of Kenya topographical map sheets SA-37-14 and SA-37-15 scale 1:250,000

Scale 1:250,000



LEGEND

I. KEY TO THE FLORISTIC COMPOSITION

CL COMMIPHORA-LANNEA group of communities

- CL1** *Commiphora* spp.¹⁾ - *Premna holstii* - *Strychnos decussata* community
- CL1b *Dalbergia melanoxylon* variant
- CL1c *Grewia fallax* variant
- CL1d *Sericocomopsis pallida* variant
- CL1e *Givotia gosai* variant
- CL2** *Commiphora* spp.¹⁾ - *Premna holstii* - *Bauhinia taitensis* community
- CL2c *Grewia fallax* variant
- CL2d *Sericocomopsis pallida* variant
- CL2e *Terminalia orbicularis* variant
- CL3** *Commiphora* spp.¹⁾ - *Boscia coriacea* - *Cordia gharaf* community
- CL3c *Acacia nilotica* variant
- CL3d *Sericocomopsis pallida* variant
- CL3e *Terminalia orbicularis* variant
- CL4** *Commiphora* spp.¹⁾ - *Caesalpinia trothae* - *Schmidia bulbosa* community
- CL4c *Grewia forbesii* variant
- CL4d *Sericocomopsis pallida* variant
- CL4e *Tetrapogon bidentatus* variant
- CL5c** *Commiphora* spp.¹⁾ - *Opuntia vulgaris* - *Euphorbia* spp.³⁾ community

CA COMMIPHORA-ACACIA group of communities

- CA1** *Commiphora* spp.¹⁾ - *Dobera glabra* - *Anisotes parvifolius* community
- CA1d *Digitaria macroblephara* variant
- CA1e *Tetrapogon bidentatus* variant
- CA2** *Commiphora* spp.¹⁾ - *Acacia reficiens* - *Cadaba glandulosa* community
- CA2c *Grewia forbesii* variant
- CA2d *Digitaria macroblephara* variant
- CA2e *Tetrapogon bidentatus* variant
- CA3** *Commiphora* spp.¹⁾ - *Caesalpinia trothae* - *Cadaba glandulosa* community
- CA3c *Grewia forbesii* variant
- CA3d *Digitaria rivae* variant
- CA3e *Tetrapogon bidentatus* variant

AS ACACIA-SCHOENEFELDIA group of communities

- AS1** *Acacia* spp.²⁾ - *Schoenefeldia transiens* - *Maerua* species community
- AS1c *Grewia forbesii* variant
- AS1d *Digitaria macroblephara* variant
- AS1e *Tetrapogon bidentatus* variant
- AS2** *Acacia* spp.²⁾ - *Schoenefeldia transiens* - *Enteropogon somalensis* community
- AS2c *Andropogon schinzii* variant
- AS2d *Digitaria rivae* variant

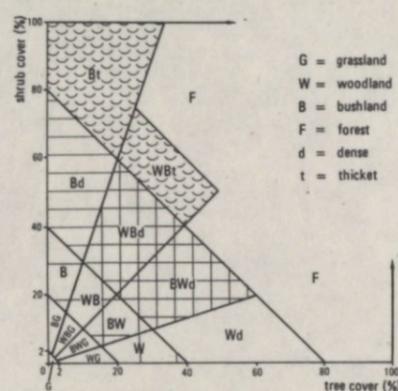
DM DIOSPYROS-MANILKARA group of communities

- DM1** *Diospyros cornii* - *Grewia* spp.⁴⁾ - *Thespesia danis* community
- DM1a *Carissa edulis* variant
- DM1b *Commiphora* species¹⁾ variant
- DM2b** *Diospyros cornii* - *Caesalpinia trothae* - *Terminalia prunioides* community
- DM3b** *Diospyros cornii* - *Dobera glabra* - *Chloris roxburghiana* community
- DM4b** *Diospyros cornii* - *Caesalpinia trothae* - *Dobera glabra* community
- DM5** *Diospyros consolatae* - *Acacia zanzibarica* - *Schoenefeldia transiens* community
- DM5a *Carissa edulis* variant
- DM5b *Acacia nilotica* variant
- DM6b** *Diospyros consolatae* - *Dobera glabra* - *Croton pseudopulchellus* community
- H Undifferentiated vegetation of the hills and mountains
- F Undifferentiated vegetation of the floodplains
- C Complex of several variants of community CL3, CA1, CA2 and AS1

For details of the floristic composition see table 14 and 15 in the report

- 1) *Commiphora* species include: *Commiphora africana*, *Commiphora campestris*, *Commiphora holtziana*, *Commiphora schimperi*
- 2) *Acacia* species include: *Acacia bussei*, *Acacia reficiens*, *Acacia senegal*, *Acacia thomasii*, *Acacia zanzibarica*
- 3) *Euphorbia* species include: *Euphorbia cactiformis*, *Euphorbia grandicornis*, *Euphorbia tirucalli*
- 4) *Grewia* species include: *Grewia bicolor*, *Grewia forbesii*, *Grewia tembensis*, *Grewia tristis*, *Grewia villosa*

II. KEY TO THE VEGETATION STRUCTURE



III. KEY TO THE GRASSCOVER

- 1 less than 20% cover by perennial grasses
- 2 20-50% cover by perennial grasses
- 3 50-100% cover by perennial grasses

IV. KEY TO THE ECOLOGICAL INDICATION OF THE VEGETATION COMMUNITIES AND VARIANTS

COMMUNITIES	ECOLOGICAL ZONE					SOIL CONDITIONS
	IV	Va	Vb	Vla	Vlb	
CL1b, CL1c, CL1d, CL1e						well drained, deep, very acid soils
CL2c, CL2d, CL2e						well drained, deep, moderately acid soils
DM1a, DM1b, CL3c, CL3d, CL3e						well drained, deep, slightly acid soils
DM2b, CL4c, CL4d, CL4e, CL5c						well drained, shallow, neutral soils
CA1d, CA1e						well drained, deep, neutral soils
DM3b, CA2c, CA2d, CA2e						well drained to imperfectly drained, deep, neutral soils, often calcareous and/or saline in the subsoil
DM4b, CA3c, CA3d, CA3e						well drained to imperfectly drained, shallow to deep, slightly alkaline soils
DM5a, DM5b, AS1c, AS1d, AS1e						imperfectly drained to poorly drained, deep, alkaline soils, often calcareous and saline
DM6b, AS2c, AS2d						poorly drained, deep, alkaline, calcareous soils
H						well drained, shallow to moderately deep, acid to neutral soils of the hills and mountains
F						well drained to poorly drained, deep, neutral to slightly alkaline stratified soils of the floodplains
	VARIANTS					

KEY

- group of communities (See "Key to the floristic composition")
- vegetation community (See "Key to the floristic composition")
- vegetation variant (See "Key to the floristic composition")
- grasscover (See "Key to the Grasscover")
- vegetation structure (See "Key to the Vegetation Structure")
- vegetation boundary

1 Sq. cm. 625 ha

- all weather road
- track
- railway
- railway station
- international boundary
- provincial boundary
- district boundary
- building
- school
- bridge
- river
- pipeline
- contours V.I. 1000 ft.
- hill top
- scarp
- park boundary

NB. Most of the roads and tracks are in approximate alignment.



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- VEGETATION SURVEY AND MAP PREPARATION
- vegetation survey (1976-1978) W. van Wijngaarden¹⁾, O.K.H. Wamukoya²⁾
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