

Nalgonda

1880

1st Survey

1968

Resurvey

The Process has not been completed

13 Notification has not been

published which proclaims

the completion of Survey &

Settlement

13 Notification has only be done

for Andhra.

13 Publication has not been

published

Original In

Re-Survey

Crown

1883

Shedule

Gudden

"

Stone table

1420.22

Osama

"

Personals
compass

✱

↳ Descriptive Memoirs A1

CRA

S. Tiruvaramam

Jt. Dir. Survey

PWD - Buildings

Mr. Gyanam

Asst. Director

830550

Extn. 379 ✓

TABLE I

Biophysical Zone

1. The Nilgiri Plateau

Vegetation Types.

- Montane Shola
- Montane Grasslands
- Peat bogs & Swamps.

2. The Mysore Plateau

- ~~Bassia~~ Evergreen forests
- Semi-evergreen & deciduous forests
- Alluvial Swamps
- Riverine Vegetation.

3. The Attappadi Plateau

- Evergreen forests
- Semi-evergreen & deciduous forests
- Riverine Vegetation.

I

Biophysical Zone

2. The Kolambur Plains

5. The Coimbatore Plains

Vegetation Types

- Evergreen forests

- Semi evergreen & deciduous forests.

TABLE II

Pre-settled Agriculture (100AD - 1585AD)

<u>Biophysical Zone</u>	<u>Human Communities Population</u>	<u>Mode of Resource Use</u>	<u>Impact on Vegetation</u>
1. The Nilgiri Plateau	Todas, Kotas, Irulas Kotas Kurumbas	Pastoralism, Shifting-cultivation, Artisanal & trading, Hunting, Gathering & Scavenging.	Minimal. Shifting cultivation & habitation sites along perennial streams.
2. The Mysore Plateau	Kurumbas, Irulas, Paniyas.	Shifting cultivation Hunting, Gathering, Scavenging; Some settled agriculture. Trade limited exchange. Seasonal Pastoralism.	Shifting cultivation and habitation sites along perennial streams.
3. The Attappadi Plateau	Kurumbas, Irulas.	Shifting cultivation Hunting, Gathering	Many shifting cultivation & habitation sites along perennial streams.

II Bio-physical Zone

4. The Nilambur Plains.

Human Communities

Shole Naikens

Mode of Resource Use

Hunting, Gathering.

Impact on Vegetation

Minimal.

5. The Coimbatore Plains.

Kurumbas, & Gonds.

Shifting-cultivation
Hunting Gathering
Settled Agriculture.
Seasonal Pastoralism.

Patches of
Husbanded
Vegetation along
streams.

Grazing pressure
in certain
areas with a
degradation in
vegetation.

TABLE III

Settled Agriculture Period (c. 1505 - 1812)

Biophysical Zone

Human Communities

Modes of Resource Use

Impact on Vegetation

1. The Nilgiri Plateau

Badagas, Todas, Kotas,
Irulas & Kurumbas.

Settled Agriculture
Pastoralism.
Shifting-cultivation
Hunting, Gathering.
Artisanal

Introduction of
new biota into the
Nilgiris.
Permanent cultivation
sites in the valleys.
~~Permanent~~ Shifting
cultivation spread
onto slopes of the ~~hills~~
Nilgiri hills.

2. The Mysore Plateau

Kurumbas, Irulas,
Parigas, Chettis.

Settled Agriculture
~~Pastoralism~~
Shifting-cultivation
Hunting, Gathering
Pastoralism.

Settled-agriculture
in the Wynad
swamps.
Shifting-cultivation
along perennial
streams.

III Biophysical Zone

Human Communities

Modes of Resource Use

Impact on Vegetation

3. The Attappali Plateau

Kurumbas, Iruulas.

Shifting cultivation
Hunting, Gathering

Many shifting cultivation sites along perennial streams

4. The Nilambur plains

Shola Naikens.

Hunting, Gathering

Minimal.

5. The Coimbatore Plains

Kurumbas, Iruulas, &
Gounders, Chettis.

~~Sh~~ Settled Agriculture
Shifting cultivation
Hunting Gathering
Seasonal Pastoralism.

Irrigated cultivation along streams.
Grazing pressure in many areas with a degradation in vegetation.

TABLE IV First Phase of British Colonization: (1812 - 1860)

<u>Biophysical Zone</u>	<u>Human Communities</u>	<u>Modes of Resource Use</u>	<u>Impact on Vegetation</u>
1. The Nilgiri plateau	Todas, Badagas, Todas, Kotas, Kummbar & Imlas; Settlers, British . Europeans.	Settled Agriculture Shifting cultivation Hunting, Gathering Artisanal.	Introduction of new biota. Change in settlement patterns - towns & bazars. Deforested around towns & bazars. Spread of shifting cultivation. Spread of settled agriculture.
2. The Mysore Plateau	Kummbar, Imlas, Daviyas, Chettis.	Settled Agriculture Pastoralism. Shifting-cultivation Hunting, Gathering.	Settled agriculture in Mysore swamps; Shifting-cultivation and pastoralism ^{grazing} along perennial streams. Coffee plantations . Forest workings .

IV

Biophysical Zone

Human Communities.

Modes of Resource Use

Impact on Vegetation

3. The Attappadi Plateau

Kurumbas, Aulas.

Shifting cultivation
Hunting, Gathering

Many shifting
cultivation sites
along perennial
streams

4. The Nilambur Plains.

Shola Mairans.
Europeans ~~settled~~

Hunting, Gathering.
Trade & Military.

Experiments with
new brota of
~~Forest plan~~
& with timber
trees -
Change in
settlement patterns.

5. The Coimbatore Plains.

Kurumbas, Aulas
Goundus, Chettis.

Settled agriculture
Shifting cultivation
Hunting, Gathering
Seasonal Pastoralism.

Spread of
Irrigated agriculture
and dry agriculture.
Reduction on
Shifting-cultivation.
Increased Grazing
pressure.

TABLE V : Second Phase of British Colonization (1860 - 1950)

<u>Bio physical Zone</u>	<u>Human Communities</u>	<u>Mode of Resource Use</u>	<u>Impact on Vegetation</u>
1. The Nilgiri plateau	Badagas, Todas, Kotas, Kurumbas, Izulas, Settlers, Europeans.	Settled agriculture Shifting Hunting, Gathering Artisanal Industrial.	Spread of agriculture Spread of tea, coffee plantation. Reservation and Protection of sholas. Fuel wood plantations. Changes in settlement patterns.
2. The Mysore Plateau	Kurumbas, Izulas, Paniyas, Chettis, & Settlers, Europeans.	Settled agriculture Shifting cultivation Hunting, Gathering Industrial Pastoralism	Settled agriculture in Wynad swamps. Shifting cultivation ^{sectors} / tal and grazing along perennial streams. Depopulation and abandonment of villages due to famine and disease. Coffee plantations Forest workings Forest plantations

Biophysical Zone

Human Communities

Modes of Resource Use

Impact on Vegetation

3. The Attappadi Plateau

Kuumbas, Irulas,
Gounders.

Shifting cultivation
Settled agriculture.

Shifting cultivation
restricted.
Settled agriculture
in certain areas
along streams.
Forest workings.

4. The Nilambur Plains.

Stola Naikens,
Europeans
Settlers.

Hunting Gathering
Industrial.

Plantations of
tea, rubber in
clearfelled forests.
Forest workings.

5. The Coimbatore Plains.

Kuumbas, Irulas
Gounders, ~~the~~ ~~the~~

Settled agriculture
Shifting cultivation
Hunting, gathering
Seasonal pastoralism.

Spread of irrigated
agriculture and dry
cultivation.
Restrictions on
shifting cultivation.
Increased grazing
pressure.
Forest workings
Forest plantations.

TABLE VI

Modern Period (1950 - 1990)

Biophysical Zone

Human Communities

Modes of Resource Use

Impact on Vegetation

1) The Nilgiri Plateau

Badagas, Todas, Kotas,
Kunumbas, Irulas,
Settlers, ~~European~~

Settled agriculture.
Industrial.

- ~~Introduction~~ Introduction of new crops.
- Intensification of agriculture.
- Conversion of grasslands into industrial plantations.
- Massive drainage pattern manipulation.
- ~~Urbanization~~ Urbanization.
- Industrial pollution.

2) The Mysore Plateau

Kunumbas, Irulas, Paniyas,
Chettis, Settlers.

Settled agriculture
Industrial.
Pastoralism.

- * Spread of settled agriculture
- * Over grazing.
- * Forest plantation & forest workings.
- * Changes in settlement patterns.

Biophysical Zone

Human Communities

Mode of Resource Use

Impact on Vegetation

3) The Attappadi plateau.

Kuumbas, Imlas,
Govindas, Settlers from
Kerala.

Settled agriculture
~~Shifting cultivation~~
Seasonal pastoralism.

^{settled agriculture}
Spread of agriculture.
Over-grazing.

4) The Nilambur Plains.

Sholavarkans.
Settlers.

Hunting gathering
Settled agriculture.
~~Seasonal pastoralism~~.

Spread of settled
agriculture.
Forest workings
Forest plantations

5) The Coimbatore Plains

Kuumbas, Imlas,
Govindas, Chettis.

Settled agriculture.
Seasonal pastoralism.

Introduction of new crops
Spread and intensification
of settled agriculture.
Arboriculture
Over-grazing.

Cultural Chre

Indigenons

15 Iwala / ¹¹⁵ Kumbon H-6 / SC.

2 Kota Artisanal

2 Ioda Pastoral

12 Badaga Agricultural

1 Bedon Agri

1 Chetta Agri

1 Subakaravan Fishing

(84) Settlers

1 Gonda Agriculturist

1 Aki-Jambiran Labourer

1 Katti Paroja Labourer

4 Settlers various Labourers

1 Isadu Isadu

Settlers

2 Employee Service

3 NGOs

3 Planter

1 Sumbal-

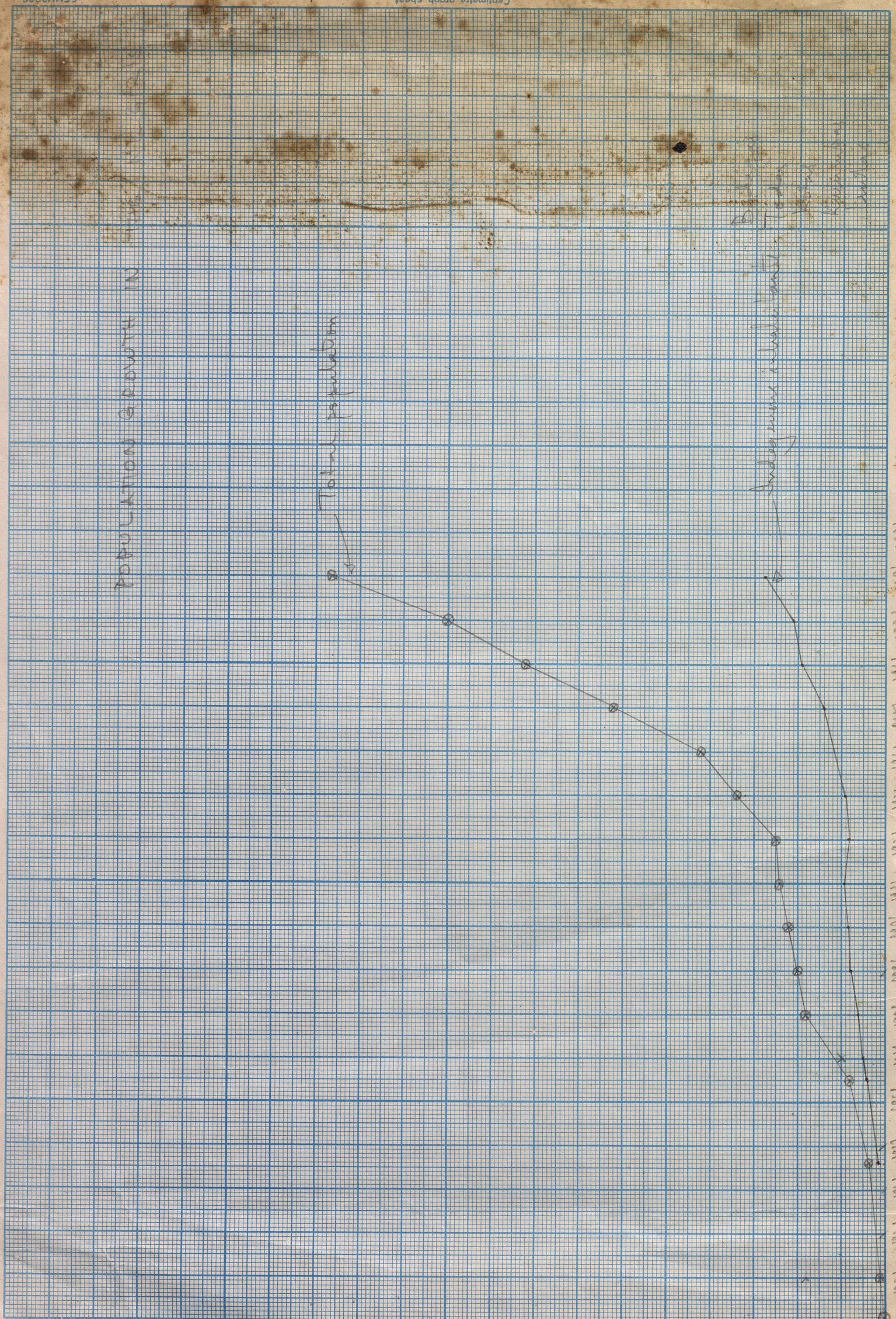
(17)

POPULATION GROWTH IN HANNOVER

Total population

Undergrowth in 1800

X 1000 persons



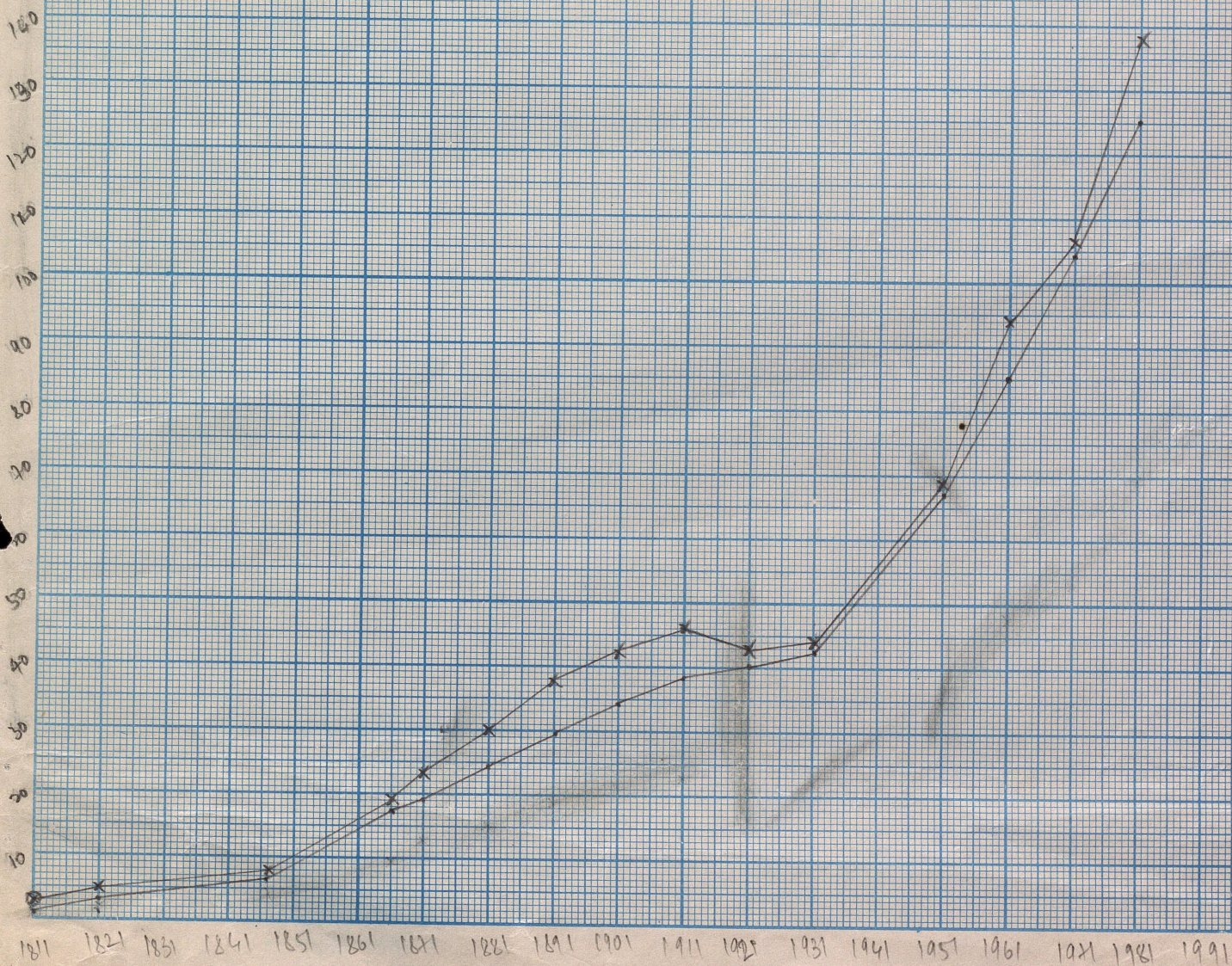
1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1991

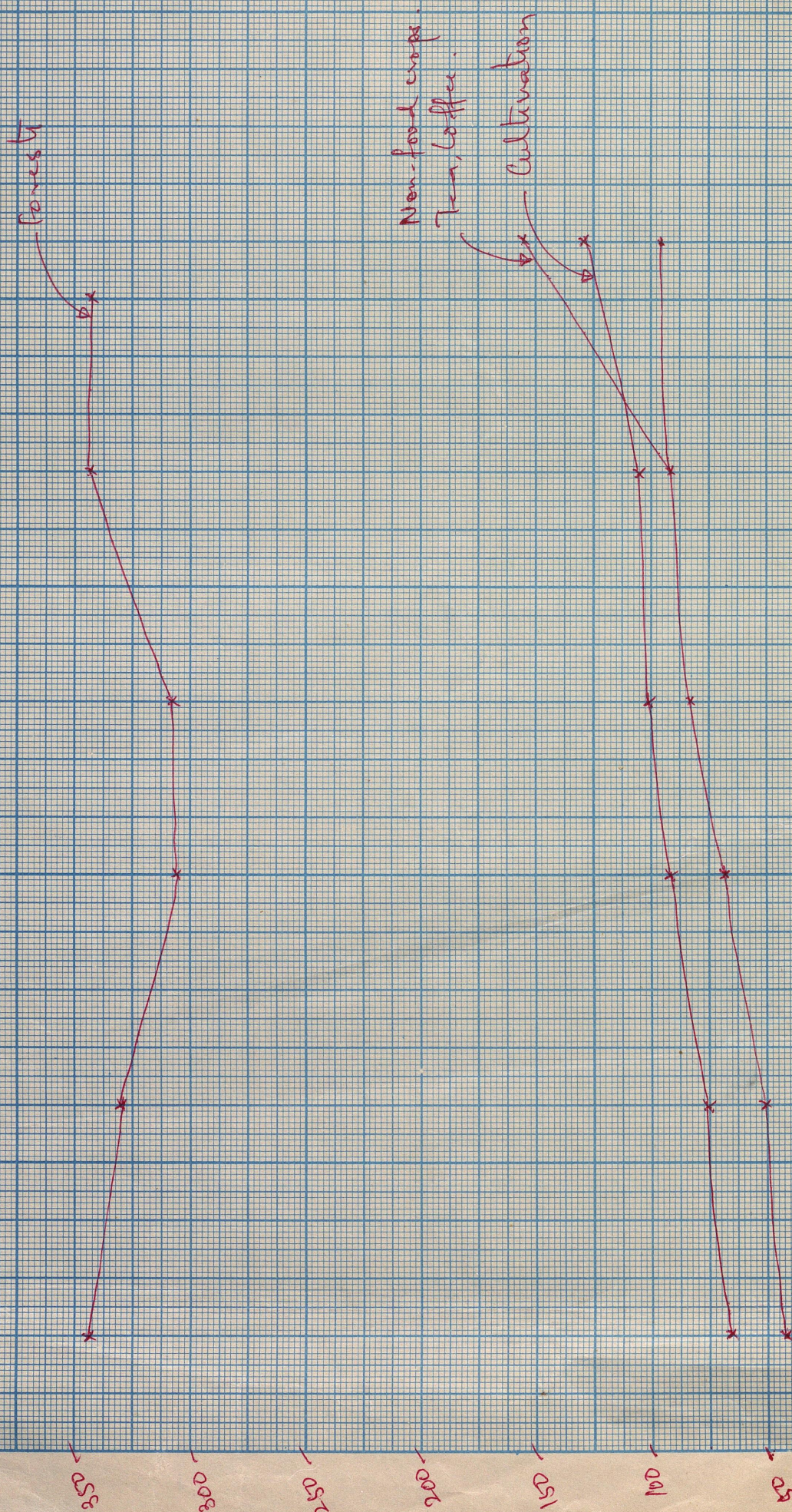
GROWTH OF INDIGENOUS POPULATION

IND - SETTLED CULTIVATORS (BADGAS)

- OTHERS (KOTA, IRULA, KUDUMBI, TODA)

(1602 - Badgas = 200
Toda = < 1000.)





1910

1920

1930

1940

1950

1960

Forest

Non-food crops:
Tea, Coffee:
Cultivation

300

250

200

150

100

0

PERIOD

BIO PHYSICAL ZONE

VEGETATIONAL CHANGE

~~HYDROLOGICAL CHANGES~~

RESOURCE FLOWS

< 100 AD.

Malgiris Plateau

Montane Sholas
Montane Grasslands
Peat bogs & Swamps

— —

Myson Plateau
(Mywood)

&
Evergreen forests
Semi-evergreen & deciduous forests
~~Riverine~~ Vegetation
Alluvial Swamps.

— —

Erjir Plateau

~~Deciduous~~ to
Semi-evergreen & deciduous forests
Riverine Vegetation.

— —

Attappadi Plateau

Evergreen forests
Semi-evergreen & deciduous forests
Riverine vegetation

— —

Nilambur Plains

Evergreen forests

Coimbatore Plains

Semi-evergreen & deciduous forests
Riverine Vegetation.

— —

~~PERIOD~~
100 AD - c. 1550

VEGETATIONAL CHANGE

RESOURCE FLOWS

PERIOD

BIOPHYSICAL ZONE

VEGETATIONAL CHANGE

RESOURCE FLOWS

Outflows

Inflows

100 AD - c. 1550

Nilgiris Plateau

Grazing.
Clearings for shifting-cultivation
along favourable sites.

^{Goat}
livestock products.

Grain.
Biotas

c. 1550

Mysoor Plateau
(Mysore)

Paddy cultivation in alluvial swamps.
Clearings for shifting-cultivation
along favourable sites
Grazing

Some timber &
MFPs.

Biotas

(Bijapur)

Grazing.
Clearings for shifting-cultivation
along favourable sites

Sandalwood.
MFPs.
livestock products

Biotas

Atappadi Plateau

Clearings for shifting-cultivation
along favourable sites

Timber
MFPs.

Biotas

PERIOD

BIOPHYSICAL ZONE

VEGETATIONAL CHANGE

RESOURCE FOCUS

OUTFLOW

INFLOW

10000 - c. 1550

Coimbatore Plains

- Grazing ^{for}
- Clearing / Shifting cultivation along favourable sites
- Settled Agriculture along favourable sites

livestock products
MPPs
Timber

Biotas

The Nilambur Plains

-

MPPs

Grain?

PERIOD

BIOPHYSICAL ZONES

VEGETATIONAL CHANGE

RESOURCE FLOWS

0

I

C.1550 - C.1812

Nilgiris Plateau

- Settled Agriculture in the East.
- Clearings for shifting cultivation along favourable sites in flat valleys.
- Grazing.
- Clearings for mining.

Livestock produce.
Minerals.

Minerals
Biota.

Mysore Plateau
(Mysore)

- Paddy cultivation in alluvial swamps.
- Clearings for shifting cultivation along favourable sites
- ~~Mining~~ Clearings for mining.
- Grazing.

Some timber
MCPs
~~Mining~~
Minerals

(Sargur)

- Grazing.
- Clearings for shifting cultivation along favourable sites

Livestock produce.
MCPs.
Sargal wood

Alappadi Plateau

- Clearings for shifting cultivation along favourable sites

Timber
MCPs.

<u>PERIOD</u>	<u>BIO PHYSICAL ZONE</u>	<u>VEGETATIONAL CHANGE</u>	<u>RESOURCE FLOWS</u>	
			<u>0</u>	<u>I</u>

c.1550 - c.1812

The Noolambon Plains -

-

MPPs

Grain?

The Coimbatore Plains.

- Grazing.
- Clearings for shifting cultivation along favourable sites.
- Settled agriculture along favourable sites.

hivestock products
MPPs.
Timber
Sandal wood

-

RESOURCE FLOWS

PERIOD

BIOCLIMATIC ZONE

VEGETATIONAL CHANGE

0

I

C. 1812 - 1850

Nilgiri Plateau

- Spread of settled agriculture.
- Spread of shifting cultivation ~~along~~
- Deforestation among towns
- Change in settlement patterns
- Grazing
- Plantations of fuelwood, tea, coffee.

-

Biota.
Foodgrains.
Minerals.

Mysore Plateau
(Mysore)

- Paddy cultivation ^{in alluvial} ~~along~~ swamps
- Clearings for shifting cultivation along favourable sites
- Clearings for mining
- Grazing
- Plantations of coffee.

Some timber
MPS.
Minerals

Biota.

(Bijur)

- Grazing
- Clearings for shifting cultivation along favourable sites
- ~~forest plantations~~
- ~~forest clearings~~

Livestock products
MPS.
Sandalwood.

Mappadi Plateau

- Clearings for shifting cultivation along favourable sites

Timber
MPS.

<u>PERIOD</u>	<u>BIOGEOGRAPHICAL REGION</u>	<u>VEGETATIONAL CHANGE</u>	<u>RESOURCE FLOWS</u>	
			<u>0</u>	<u>I</u>

c. 1812 - 1850

The Nalambur Plains

- Forest
- Plantations.
- Change in settlement patterns

-	Bata.
---	-------

e.

The Coimbatore Plains

- Grazing
- Spread of settled agriculture.

Timber
 MFAs.
 livestock products.
 Sandalwood.

PERIOD

BIOGEOGRAPHICAL ZONE

VEGETATIONAL CHANGE

RESOURCE FLOWS

D

I

1860 - 1950

Nelgiris Plateau

- Spread of settled agriculture
- Spread of plantations
- Change in settlement patterns
Urbanization & Immigration
- Reservation of forests

Tea, coffee,
Cinchona,
Vegetables.

Biota.
Food grains.

Mysore Plateau
(Wynnad)

- Paddy cultivation ^{in alluvial} ~~along~~ swamps
- Spread of plantations.
- Clearings for mining.
- ~~Clearings for shifting cultivation~~
- Clearings for shifting cultivation
along favourable sites
- Forest workings
- Forest plantations.
- Grazing.

Timber
MFBs

(Sargur)

- Grazing
- Abandonment of villages due to
disease & famine.
- Forest plantations
- Forest workings

Timber
Sandalwood
MFBs
Livestock produce.

PERIOD

BIOGEOGRAPHICAL ZONE

VEGETATIONAL CHANGE

RESOURCE FLOWS

0

I

c. 1800 - c. 1950.)

Attappadi plateau

- Settled agriculture.
- Forest workings
- Forest plantations.
- Grazing.

Timber
MPPs

Biota.

Milambur Plains.

- Plantations of Rubber.
- ~~Changes in settlement~~
- Changes in settlement pattern.
- Forest workings
- Forest plantations.

Timber
Rubber
MPPs

Coimbatore Plains -

- Grazing.
- Settled agriculture
- Forest workings
- Forest plantations.

Sandalwood
Timber
livestock products
MPPs.

PERIOD

1950 - 1990

VEGETATIONAL CHANGE
BIOGEOGRAPHICAL ZONE

VEGETATIONAL CHANGE

RESOURCE FLOWS

(10)

Nelgiri Plateau

Intensification
Spread of agriculture
Spread of plantations
Forest plantations in grasslands
Drainage pattern manipulation
~~Urbanization~~
Urbanization
Industrial pollution
Conservation & protection of wilderness areas.

O
Tea,
Coffee,
Vegetables,
Timber -
Electricity.

I
Improved biota.
Food grains

Mysore plateau
(Mynaad)

- Changes in settlement pattern
- Spread of plantations
- Forest plantations
- Forest workings
- Paddy cultivation in alluvial plains.
- Grazing.

Tea, coffee,
Timber.
MFPs.

(Sargur)

- Grazing
- Forest plantations
- Forest workings
- Pockets of settled agriculture.

Timber
Sandalwood
MFPs.
Livestock produce.

PERIOD

BIOPHYSICAL ZONE

VEGETATIONAL CHANGE

RESOURCE FLOWS

D

I

C. 1950 - 1950)

Atappadi Plateau

- Spread of settled agriculture
- Change in settlement pattern
- Grazing

- Agricultural products

Biota -

- livestock products

Nilambur Plains -

- Change in settlement pattern
- forest workings
- forest plantations
- Spread of plantations
- Spread of agriculture

Timber

Improved Biota -

MPPs

Rubber

Coimbatore Plains

- Grazing
- Settled agriculture
- forest workings
- forest plantations

Sandalwood

Improved Biota -

Timber

MPPs

livestock products

Teak (selection felling) Nilgiri Forest Division

Year	C No	Area	CFT
1927-28	16	1227	45052
1928-29	15	1568	17850
1929-30	17	905	12497
1930-31	27	1106	34226
1931-32	Felling suspended		
1932-33	felling suspended		
Depression in timber market due to poor quality wood. Teak from Nilambur fetched better price			
1933-34	18	350	4606
1934-35	18	739	4257
1935-36	18 & 19	899	19626
1938-39	26	2096	38534
1939-40	21	1296	18365
1940-41	23	1366	18365
1941-42	No felling as the area was infested with anthrax		
1942-43	20	1358	16,079
1943-47	No felling, due to Military occupation of the area		
1947-48	24	986	25,677
1948-49	25	1200	31,374
1949-50	25	91	621
	39	700	30,967
			31588
1950-51	39	506	21,442
	38	350	9,491
			21442 9491 30933
1951-52	38	435	14,928
	29	NA	21,220
			36148
1952-53	Benne 29	600	39,737
	Benne 20	600	
1953-54	Benne 30	640	45,748

				No. of trees
1954-55	Teppakadu 1	1057	16,768	1,124
1955-56	Benne 32	790	3,344	1,453
1956-57	Teppakadu 2	831	19,790	1,662
1957-58	Benne 33	974	857	1,460
1958-59	Teppakadu 3	1007	36,891	1,477
1959-60	Benne 37	1158	21,340	2,316
1960-61	Teppakadu 4	1191	70,176	2,382
1961-62	Benne 35	1135	863	1,135
1962-63	Teppakadu 1	929	53,103	1,072
	Benne 34	866	?	1,425

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Area clear felled in
Extraction in Mudumalai

Currently trying to compile these figures

Year	Area (Acres) Clear felled	Area (Acres) Selection felled	Plantation Area (Acres) Worked	
			Wattle	Bhegunn (Ful)
1927-28	12.50	1227		
1928-29	20	1568		
1929-30	30	905		
1930-31	40	1106		
1931-32	30	Felling suspended		
1932-33	15	Felling suspended		
1933-34	34	350		
1934-35	93	739		
1935-36	38	899		
1938-39	20.2	2096		
1939-40	22.2	1296	20+3	
1940-41	35.7	1366	20	
1941-42	70.2	No felling due to anthrax	15+14	
1942-43	71.8	1358	71.08 + 52.63	
1943-44	38	No felling	54.15 + 49.45	
1944-47	No extraction	No felling	134.95 + 102.95	
1947-48	22	986	115.85 + 40.82	
1948-49	23.5	1200		
1949-50	32.5	791		
1950-51	25.5	856		
1951-52	41.8	435		
1952-53	NA	600	130	104.35
1953-54	21.0	640	30	81.06
1954-55	30.5	1057	18	108.46
1955-56	32.25	790	45	90.35
1956-57	53.85	831	94	173.77
1957-58	31.75	974	32	250.18
1958-59	29.75	1007	31	243.95
1959-60	35	1158	40	229.32
1960-61	31.25	1191	52	239.20
1961-62	83.23	1135	92	163.85
1962-63		929	125.6	157.15

Nilgiri Forest Division

Teak Year	(Clearfelling) G.No	Area (Ann) (Acres)	cf	
1927-28	4	12.50	1562	
1928-29	6	20	569	
1929-30	6	30	1737	
1930-31	4	40	4328	
1931-32	6	30	216	
1932-33	6	15	1574	
1933-34	NA	34	6774	
1934-35	4	93	1008	
1935-36	4	38	1984	
1938-39	2	20.2	6590	
1939-40	2	22.2	6154	
1940-41	2	20.7	6078	} 8861
	1	15	2783	
1941-42	2	16.9	4290	} 12,000 19,157
	2	31.8	8093	
	19	21.5	6774	
		<u>70.2</u>		
1942-43	19	39.	11,432	} 18,999
	18	20.8	4583	
	6	12	2984	
		<u>71.8</u>		
1943-44	18	38	10,014	
1944-47	NO	retraction		
1947-48	20	22	1175	
1948-49	3	23.5	2755	

Peak

1949-50	3	32.5	3374	
1950-51	3	25.5	4,484	
1951-52	19	25.3	4484	} 6719
	3	16.5	2235	
		41.8		
1954	3	21.0	3855	
1955	5	30.5	5382	
1956	5	30	2261	} 39107
8'	Bemoe 29	2.25	39,107	
				<u>41368</u>
1957	5	31.60	4287	} 27482
	Mudumalai 27	22.25	27,482	
		53.85		4285
1958	5	31.75	6532	<u>31765</u>
	Teppakadu			
1959	5	29.75	3,249	
1960	5	35	3710	
	Oranore	32.5		
1961	5	31.25	3946	
1962	5	83.23	9861	

code #skews 0-10 10.20 20.30 30.40 40-50km G BT. 50 H PLOT 10 AUG 93

code	#skews	0-1	1-2	2-3	3-4	4-5														
1	5256	5228	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	4065	3397	654	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	2842	1800	939	100	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	2573	2573	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	2311	2035	273	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teak → 6	2203	791	1204	203	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	1960	1960	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	800	709	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	611	574	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	585	166	389	29	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	421	249	162	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	386	386	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	381	381	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	364	319	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	285	275	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	197	196	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	141	106	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	125	60	53	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	116	86	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	96	95	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	80	61	14	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	78	77	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	75	8	30	29	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	74	54	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	67	53	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	63	8	43	11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	57	43	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	48	43	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	45	30	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	38	6	20	10	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	35	2	10	11	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	34	22	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	34	30	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33	7	9	14	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	31	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	31	30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	30	14	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	29	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	22	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	21	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	20	11	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	20	9	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	19	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	15	9	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	14	6	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	13	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	12	5	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	12	1	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	11	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	11	0	4	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	10	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	8	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	7	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57	7	1	4	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	6	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NUMBERS

120 = 9 = 2~

DEE PER-COMPUTER FORMS PVA 1 ID. DERHAKAW

Year	Tea	Coffee	Rubber	Conchona/ Misc.	Total	Reserve Area
1925	11,397 7,102	7,273 5,076	814	1,676 Pepper 85	20,260 12,263	15,682 26,767
1927	11,769 7,920	7,565 5,041	589	1,626 Pepper 85	21,549 13,046	15,443 27,900
1930	16,237 10,502	7,462 4,526	724	1,621 Pepper 85	26,049 15,113	17,537 40,378
1932	18,236 11,060	7,317 4,526	728 210	1,626 Pepper 95	27,907 15,688	17,932 40,688
1934	19,091 13,992	8,158 4,774	583 282	1,028 5	28,888 19,053	18,416 42,774
1948 (?)	20,831 13,863	18,941 5,548	488 649	1,830 C 600	42,090 20,660	
1951	25,030 13,771	17,498 5,994	522 628	C 542 Misc. P.	43,146 20,976	18,416 42,774
1955	28,317 N-W 14,069	18,497 5,126	385 347	219	47,306 19,761	
1956	" N-W 14,158	" 5,126	339 347	C. 219	47,280 19,850	
1965 (ha)	16,117.15	6,644.48 4,274.8	244.33	31.16	23,137.12	
(ha)	5,888.00	3,064.06	116.14	C. 113.55 P. 12.14 Cin. 571.00	9,572.89	
1969						

(Source: Planter's Directory)

6,561.98
+ 182.50

6,744.48

9/6/02

Planting Opinion: Vol 4, No 3, Jan 21, 1899. p

46) In the Board of Revenue's Report on the operations of the Dept. of Land Records & Agriculture during the year 1897-88, there is the following paragraph regarding Entomology: - "At the instance of the United Planters Association, relying on the success of Hawaiian & American experiments for the extermination of scale-pests, Government decided to give a grant in-aid of the deputation of a planter, in the absence of a skilled Entomologist, to Australia to collect and to bring back to India, a consignment of lady-birds which, it was hoped would prove destructive of the scale-pests ^{on} coffee. Mr. Newport proceeded to Australia late in the year and appears to have received all possible aid and advice from the Australian authorities in connection with the collection of lady-birds; but unfortunately the consignment he brought back failed to survive the voyage."

50) Weeds: Commenting on our recent remarks on the oxalis, a Madras correspondent writes that "Poonac" has nothing to say to the introduction of it, the spread may be traced to the use of manure near which the oxalis has shed its seeds or bulbs. The real origin may be traced to some flower garden where it has been grown as a "pretty flower" and the commoner variety, without a flower to recommend it, has got in with other seeds. At the "Woodlands" Estate in Ootacamund the devastation caused by it may be seen; it is in such the unhappy owner strives to eradicate it: up it comes more vigorously than ever, all the stronger for having the earth loosened. In private gardens it has found itself in homes in the turf about, without ousting the grass. Cattle will not eat it: in time if it spreads as it is doing, there will be little left of pasture of any kind.

51) "South Mysore contains a number of very fine coffee estates, some of which over 30 years old, are now making phenomenal crops, while the tea which has been opened almost exclusively upon lands

Time Chart of Commercial Resource Use in N-Wyand.

1800 1850 1900 1950 1990

~~Agroecology~~

Land Use

Coffee (1830 ~~1850~~ - 1890) Pest attack (1890 - 1900) Coffee in favorable areas (1900 - 1990)

~~Coffee~~
Tea trials (1860 - 1900)

Tea (1950 - 1990)

Ginger (1900 - 1990)

Mixed plantation crops: Coffee, Pepper, Cocoa, Tea, Ginger, ~~Rubber~~

Rubber (1880 - 1900) Rubber (1950 - 1990)

Forest

~~Various timber trees: Oak, Rosewood,~~

Teak (*Tectona grandis*) (1850 - 1990)

Rosewood (*Dalbergia latifolia*) (1870 1900 - 1990)

Ventilator (*Lagerstroemia lanceolata*)

(1900 - ~~1960~~) 1960

Vengai (*Pterocarpus marsupium*)

(1900 - 1960)

mathi (*Terminalia tomentosa*)

(1900 - 1960)

Oryza dalbergioides

(1900 - 1960)

Bombax malabaricum

(1940 - 1960)

~~Bambusa~~ Padari (*Cremia ~~tillifolia~~ tiliifolia*)

(1900 - 1960)

Jal (*Shorea talura*)

(1900 - 1960)

~~1900 - 1960~~

Bamboo

1960

Bamboo

1990.

Fauna

Shikar

(1850 - 1950)

Conservation

(1950 - 1990)

Illegal poaching

(1950 - 1990)

Minerals

Gold mining

(1800 - 1870)

Gold Boom

(1870 - 1890)

Gold mining

(1900 - 1990)

Subsistence Resource Use in the Nalgundi-Ulynaad

~~Subsistence~~ Age

Agriculture.

Paddy, Millets, Pulses.

(1800 - 1990)

B. ~~Harvesting~~ Fuelwood

as

(1800 - 1990)

Fauna

Hunting

(1800 - 1950)

Scavenging of kills

(1800 - 1990)

Forests

Fuelwood

(1800 - 1990)

Gathering tubers, fruits etc.

(1800 - 1990)

Access Regimes in the Nalgiri Wynaad

722.25 sq km

722.5 ha

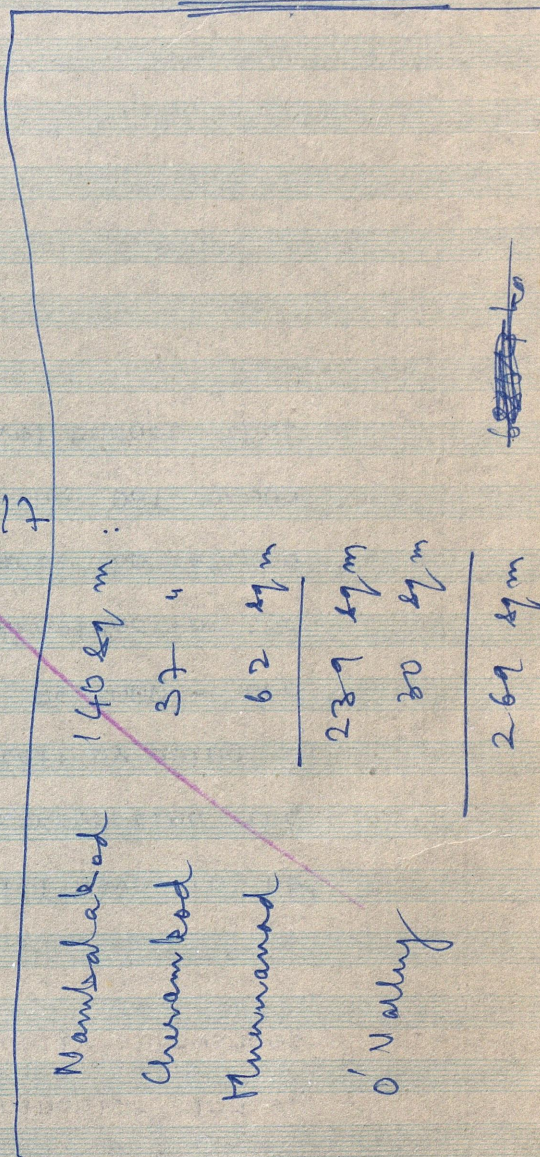
~~72341.1 ha~~

Total Area

R.F.

Ha

Bembae,	4,205.57	1885
Bemba Addition I	293.218	1885
" II	49.715	"
" III	34.693	1917
" IV	25.402	1917
" V	4.487	1935
Godabrode	93.162	1898
Mudumalai & Kumbharboli	19,360.487	1929
Cherangode I	1298.58	1958
II	553.17	1958
Annamkud	1,081.88	1958



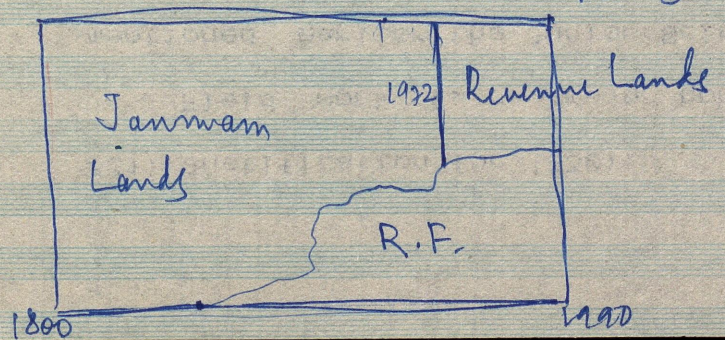
26999.764
393.324

27393.088

O Valley

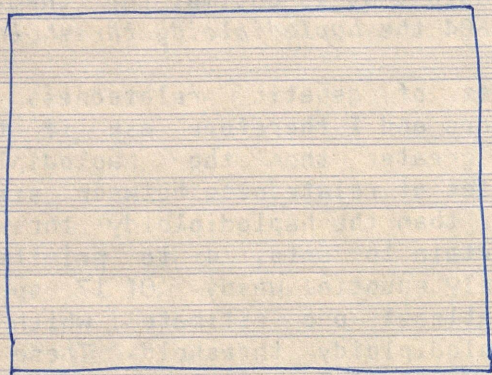
911.12 (area) 1886

→ 393.30 1886



393.30

Land Use Changes on the Sogun Plateau



Total Area = 36506 ha

	Natural Vegetation	Agriculture	Settles
1822 1850	?	500 400 ha.	0
1905 1800	?	420 ha.	90
1954 1950	?	440 900 ha.	90
1990	?	200 ha.	36

Westbury → 7/4 87
 Sogun → 92.26
16743

Area

Chart of Access Regimes in the Bogun plateau by 1900s.

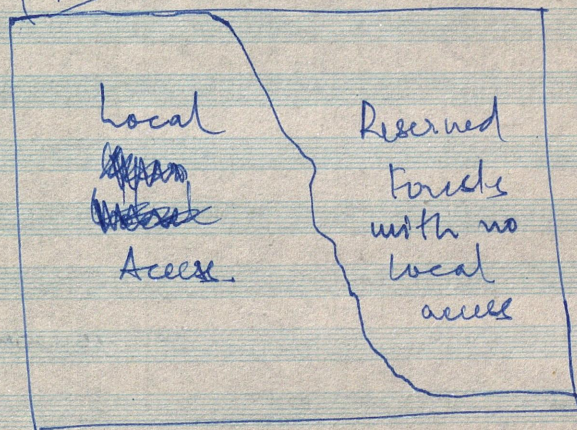
Reserved Forests : 33,856 ha.
 Village Lands : 2,650 ha.
 Estates : 90 ha.
 88.

33,856
 2,650
 90
 36,596 ha.

Reserved area ha	Total	Year
2,600.219		1900
799.042		1886
2.067		1910
1.578		1910
1.547		1910
1,993.322		1925
35.603		1923
362.598		1885
17.693		1886
5,323.664		1886
138.590		1886
1599.351		1886
742.643		1886
153.376		1905
18,811.424		1894
1,214,058		1894

36,596 ha

465.96



Total Area of Bogun 36506 ha

~~36,596 ha~~ ?

W. W. Wood

The total quantity of timber extracted.

1857 - 1910

cu ft
1,171,347

1910 - 1926

622,551

1927 - 36

226,367

Total 2,020,265

$$\frac{b}{2\pi} = r$$

$$\pi r^2 = \left(\frac{b}{2\pi}\right)^2 \times \pi = \frac{b^2}{4\pi} = \frac{9}{3.14} \approx 3 \text{ sq ft.}$$

$$3 \times 10 = \underline{\underline{30 \text{ ft}}}$$

30 ft / tree
1 cu m = 1 tree

$$1 \text{ cu m} = \frac{1}{3}$$

2A

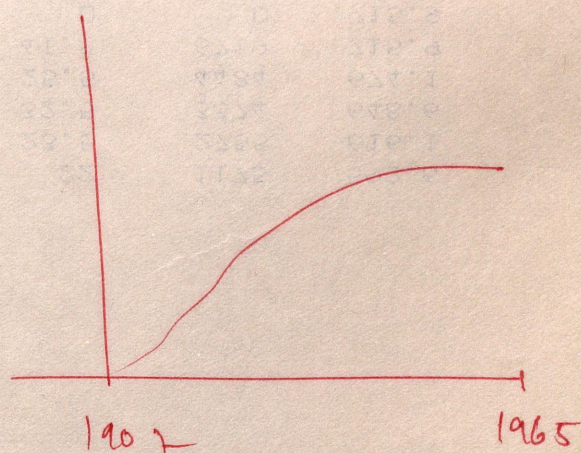
$$3 \text{ ft} = 1 \text{ m.}$$

$$\boxed{27 \text{ ft} = 1 \text{ cu m}}$$

felling cft	cummulative acres	cumm cft	clear ⁵ acres	felling cft	cum acres	cum cft
45052	1227	45052	12.5	1562	12.5	1562
17850	2795	62902	20	569	32.5	2131
12497	3700	75399	30	1737	62.5	3868
34226	4806	109625	40	4328	102.5	8196
0	4806	109625	30	216	132.5	8412

TYPE	YEAR	AREA (ha)	CUMM(ha)
T	1907	1.11	1.11
T	1907	2.26	3.37
	1916	1.21	4.58
T	1917	5.26	9.84
T	1918	2.16	12
T	1922	8.09	20.09
T	1922	8.09	28.18
T	1923	10.12	38.3
T	1924	23.07	61.37
T	1924	36.42	97.79
T	1925	44.07	141.86
T	1926	4.45	146.31
T	1926	10.12	156.43
T	1926	4.45	160.88
T	1926	1.61	162.49
T	1926	4.05	166.54
T	1927	4.05	170.59
T	1928	5.06	175.65
T	1929	6.07	181.72
	1930	9.1	190.82
	1931	12.55	203.37
	1931	2.02	205.39
	1932	16.19	221.58

Growth of Teak
Plantations in
NW Ynaad.



T	1932	5.87	227.45
T	1934	8.5	235.95
T	1935	13.35	249.3
T	1936	12.55	261.85
T	1937	10.52	272.37
T	1938	7.69	280.06
T	1939	7.69	287.75
T	1940	8.5	296.25
T	1941	7.89	304.14
T	1941	6.07	310.21
T	1941	6.88	317.09
T	1942	6.88	323.97
T	1942	12.55	336.52
T	1942	8.5	345.02
T	1943	4.45	349.47
T	1943	8.5	357.97
T	1943	8.58	366.55
T	1944	15.38	381.93
T	1944	7.36	389.29
T	1948	8.9	398.19
T	1949	9.5	407.69
T	1950	10.12	417.81

2-5-3-4 GERTRU CLASS DISTRIB

10 AUG 93

Rank →

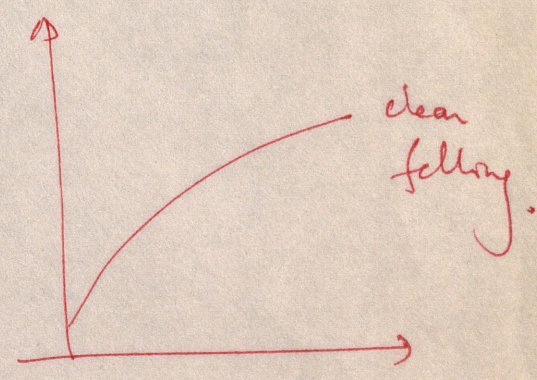
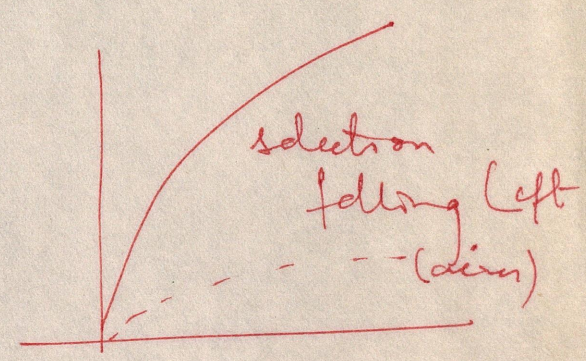
	T	K1	L2	2-5	3-4															
1	5256	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	4065	83	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	2842	63	33	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	2573	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	2311	88	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	2203	35	54	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	1960	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	800	88	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	611	93	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	585	28	66	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	421	59	38	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	386	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	381	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	364	87	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	285	96	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	197	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	141	75	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	125	48	42	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	116	74	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	96	98	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	80	76	17	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	78	98	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	75	10	40	38	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	74	72	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	67	79	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	63	12	68	17	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	57	75	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	48	89	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	45	66	24	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	38	15	52	26	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	35	5	28	31	31	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	34	64	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	34	88	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	33	21	27	42	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	31	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	31	96	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	30	46	50	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	29	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	22	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	21	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	20	55	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	20	45	45	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	19	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	15	60	33	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	14	42	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	13	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	12	41	25	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	12	8	58	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	11	90	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	11	0	36	27	27	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	10	60	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	9	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	8	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	8	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	8	87	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	7	42	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57	7	14	57	14	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	6	33	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	5	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	5	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	5	40	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62	4	25	0	25	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63	3	0	33	33	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64	2	50	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0% (movement 1%)

DEF P&F COMPUTER FORMS PWT LTD DEHRADUN

YEAR	selection felling		cumulative		clear felling		cum acres
	acres	cft	acres	cft	acres	cft	
1928	1227	45052	1227	45052	12.5	1562	12.5
1929	1568	17850	2795	62902	20	569	32.5
1930	905	12497	3700	75399	30	1737	62.5
1931	1106	34226	4806	109625	40	4328	102.5
1932		0	4806	109625	30	216	132.5
1933		0	4806	109625	15	1574	147.5
1934	350	4606	5156	114231	34	6774	181.5
1935	739	4257	5895	118488	93	1008	274.5
1936	899	19626	6794	138114	38	1984	312.5
1937	0	0	6794	138114	0	0	312.5
1938	0	0	6794	138114	0	0	312.5
1939	2096	38534	8890	176648	20.2	6590	332.7
1940	1296	18365	10186	195013	22.2	6154	354.9
1941	1366	18365	11552	213378	35.7	8861	390.6
1942	0	0	11552	213378	70.2	19157	460.8
1943	1358	16079	12910	229457	71.8	18199	532.6
1944		0	12910	229457	38	10014	570.6
1945	0	0	12910	229457	0	0	570.6
1946	0	0	12910	229457	0	0	570.6
1947	0	0	12910	229457	0	0	570.6
1948	986	25677	13896	255134	22	1175	592.6
1949	1200	31374	15096	286508	23.5	2755	616.1
1950	791	31588	15887	318096	32.5	3374	648.6
1951	856	30933	16743	349029	25.5	4484	674.1
1952	435	36148	17178	385177	41.8	6719	715.9
1953	600	39737	17778	424914	0	0	715.9
1954	640	45748	18418	470662	21	3855	736.9
1955	1057	16768	19475	487430	30.5	5382	767.4
1956	790	3344	20265	490774	32.25	41368	799.65
1957	831	19790	21096	510564	53.85	31765	853.5
1958	974	857	22070	511421	31.75	6532	885.25
1959	1007	36891	23077	548312	29.75	3249	915
1960	1158	21340	24235	569652	35	3710	950
1961	1191	70176	25426	639828	31.25	3946	981.25
1962	1135	863	26561	640691	83.23	9861	1064.48
1963	929	53103	27490	693794			

Sequential Extractions
of teak from
Nolga - Wynaad



0.04 cft/acre
0.27 cft/acre