kerala forest research institute

5, March 1979

evergreen

KERALA FOREST RESEARCH INSTITUTE
PEECHI-680 653 KERALA

EVERGREEN No.5, March 1979

FORESTRY, FORESTERS AND SOCIETY

What has forestry done to improve the lot of common man, of the peasant, for example? Precious little. Where are the rural plantations to supply constructional and farm timber? In how many countries are the peasants being helped and encouraged to improve their own lot through cooperative effort, integrating forestry activities into the farming calendar, developing some of the many fruitful combinations of forestry and agriculture? What about the millions of hectares of bare, eroded hills inflicting downstream farmland with alternating flood and drought?

The forestry profession, with some honourable exceptions, has been remarkably insensitive to the changing needs and values of society in this area of concern. There are still some who believe that forestry is about trees. It is not. It is about people and how trees can serve people. Forestry is for people.

The injunction "Do not bite the hand that feeds you" has no place. That is why all scientists and professionals including foresters must cease to be civic weaklings. To me the forests represent a renewable resource, which if managed with due regard to ecological constraints, is capable of serving an infinite variety of society's needs, at diverse material and nonmaterial levels.

(Abstracted from Westoby, J.C. 1978. Forestry, foresters and society. New Zealand Journal of Forestry 23 : 64-84).

MAN-MADE FORESTS IN KERALA

In order to plan and implement forestry development programmes and undertake research in forestry problems, we need reliable data on all aspects of forestry. Kerala Forest Research Institute in collaboration with Forest Department will organise a Data Bank for storage and retrieval of forestry data in Kerala. To start with, we collected details of man-made forests in the State.

A summary showing the year of formation and area under major species is presented in the table (p.3). The total area under man-made forests in the state in 1978 is about 1,34,300 ha consisting of 67,300 ha of teak, 36,800 ha of eucalypts and 30,200 ha of other species. The year of formation of some plantations raised in the erstwhile private forests could not be realiably established and is therefore indicated as 'Not available'.

Division-wise data are available in the Institute and will be published soon ... Division of Statistics.

* * *

MAN-FOREST INTERACTION IN ATTAPPADI

The Institute has undertaken a multidisciplinary project on "Changing patterns of man-forest interactions and their implication on ecology and management of forests in Attappadi area" financed by Environment Research and Man and Biosphere programmes of the Department of Science and Technology, Government of India. This study will generate considerable information on the complexities of man-forest interaction. The data will be useful in evolving scientific management practices for the forests and drawing up plans to implement social forestry schemes in the region ... Editor.

Year of formation and area (ha) under man-made forests in Kerala

Year of formation/ coppice	Species			Total
	Teak	Eucalypts	Others	
1978	1832	2245	857	4934
1977	2224	2295	1772	6291
1976	2699	1197	781	4677
1975	1021	1304	910	3735
1974	1425	754	1046	3225
1973	1994	957	640	3591
1972	1477	361	989	2827
1971	2308	374	493	3175
1970	1438	1375	630	3443
1969	1212	2420	1300	4932
1968	1828	3146	1326	6300
1967	1860	4384	1400	7644
1966	2434	2961	1247	6642
1965	3428	2232	1769	7429
1964	2933	1715	1129	5777
1963	2509	1528	1214	5651
1962	1616	978	1037	3631
1961	1751	424	940	3115
1960	1685	46	1541	3272
1959	868	29	1498	2395
1958	705		1360	2065
1957	865		669	1534
1956	885		748	1633
1955	777		441	1218
1954	813		334	1147
1953	858		218	1076
1952	690		266	956
1951	609		312	921
1950	631		312	943

contd...

1949	720	192	912
1948	1037	137	1174
1947	1230	188	1418
1946	1213	548	1761
1945	945	186	1131
1944	939	198	1137
1943	846	216	1062
1942	821	154	975
1941	897	125	1022
1940	672	159	831
1939	622	150	772
1938	646	110	756
1937	700	64	764
1936	604	30	634
1935	682	26	708
1934	543	26	569
1933	485	34	519
1932	402	31	433
1931	350	84	434
1930	426	18	444
1929	429	2	431
1928	425	18	443
1927	548	54	602
1926	684	50	734
1925	418	4	422
1924	430	47	477
1923	363	55	418
1922	222	1	223
1921	124		124
1920	129		129
1919	57	2	59
1918	70		70
1917	66		66
1916	23		23
1915	19		19

contd

1914	54			54
1913	28			28
1912	17			17
1911	85			85
1910	104			104
1909	80			80
1908	33			33
1907	133			133
1906	39			39
1905	4			4
1904	17			17
1903	6		13	19
1897			3	3
1896			13	13
1895	17			17
1891	1			1
Not available	2515	5541	82	8138
Total	67292	36766	30199	134257

* * *

"For every situation there are reasons and unless those reasons change, the situation cannot change."

* * *

B A L S A

Balsa (Ochroma pyramidale (Cav. ex Lamk.) Urban) is native to American tropics and the tree is reported to have been introduced to India as early as 1800. Attempts have been made to raise Balsa plantations in India, particularly in the West Coast.

Balsa is a strong light demander. It can be grown upto an elevation of about 900 m, but its growth is best below 600 m. Though it can be grown on a variety of soils, best growth is on loamy alluvial soils of humid tropical climate.

Balsa seedlings are raised by sowing two or three seeds (about 100 seeds in a gram) in containers during March-April. Germination commences from about the end of first week and completes by third week. Watering has to be done till the onset of monsoon. When the seedlings are 3-4 cm high, thin and maintain one good seedling per container. Transplanting into pits (30 x 30 x 30 cm) is done when the seedlings are 15-25 cm high. Best time for planting is when the soil is moist after getting about 250-500 mm of rain. On good sites, adopt a spacing of 5 x 5 m, while on poorer sites it can be lesser. During first year weeding is done in September, December and March and during second year in June and December. Soil working and mulching in summer will minimise damage from drought.

Balsa is an extremely fast growing species. A mean height of about 11 m and diameter of 27 cm are reported from Topslip plot (Tamil Nadu) over a period of five years. Fourth year data from sample plot in Nilambur showed average height of 7.0 m, clean bole length of 2.5 m and girth of 64 cm. On the basis of data collected from Kannavam, average yield per tree at the sixth year is 0.150 m^3.

Balsa timber is the lightest and its oven-dry weight varies from 0.12 to 0.22 g/cm^3. It has remarkable strength and elasticity and is used in the manufacture of models, toys and in aircraft and refrigeration industries. The price of Balsa wood is approximately Rs.600/m^3.

* * *

ELEPHANT POPULATION OF PERIYAR WILDLIFE SANCTUARY

Periyar Lake area was declared as a Sanctuary in 1950 and recently it has become a Project Tiger area. In a reconnaissance survey of the Sanctuary conducted recently, we have seen 588 elephants mostly around the lake area : 578 in 63 herds and 10 as solitary individuals. We estimate the elephant population to be 750.

... Division of Wildlife.

* * *

SOUTH ASIAN DIPTEROCARPS

The Institute has completed a study on 'Dipterocarps of South Asia' and sent the final report to Food and Agriculture Organisation, the sponsor. The report covers distribution, botany, ecology, silviculture, wood, nonwood products, utilisation, pests and diseases of Dipterocarpaceae, an important family with 99 species in the South Asian region. We note that Dipterocarpus bourdilloni (confined to Kallar Valley and Idamalayar) and Vateria macrocarpa (found in Muthikulam and Attappadi) are endemic and it is important that effective steps are taken to save these species from the threat of extinction ... Division of Botany.

* * *

VALUE OF FOREST

In a year, one hectare of forest fixes 5 to 10 tons of carbon and releases 12.5 to 25 tons of oxygen; pumps 2000 to 5000 tons of water releasing around 2000 tons in the atmosphere; and fixes 30 to 80 tons of dust. Trees in shelterbelts can reduce wind speeds by 50-80 with effects that can spread upto a kilometre. A 50 m strip of trees can reduce noise by 20-30 decibels.

(Abstracted from Westoby, J.C. 1978. Forestry, foresters and society. New Zealand Journal of Forestry 23 : 64-84).

* * *