



kerala forest research institute

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evergreen



KERALA FOREST RESEARCH INSTITUTE
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EVERGREEN

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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 reliably established and is therefore indicated as 'Not available'.

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

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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 | 857 | 640 | 3591 |
| 1972 | 1477 | 361 | 989 | 2827 |
| 1971 | 2303 | 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 | 835 | | 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 |

| | | | | |
|---------------|-------|-------|-------|--------|
| 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 |

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

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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 Tonslip 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.

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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.

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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; purps 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).

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