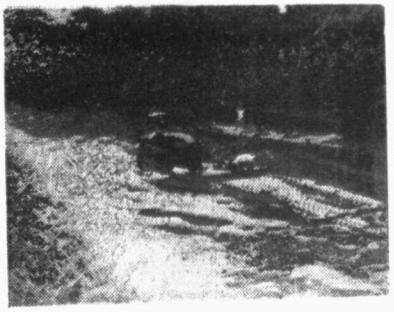
3 (11) = 1

OPTMISATION OF FOREST RESOURCES

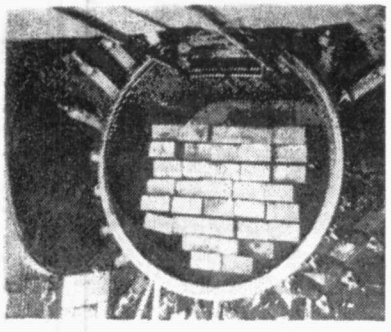
In recent times, after much of the destruction was done, attempts were being made to understand in breadth and in depth the complex nature of the forest ecosystem, the energy and the material flows that go on therein indefinitely, and related problems, so that a balanced strategy could be developed between the needs of conservation on the one hand and utilisation demand on the other, within the limits of the available forest resources. The need is obviously one of greater optimisation.

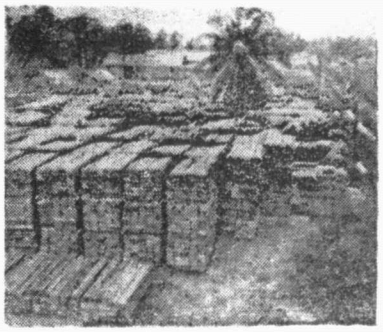
As in other tropical countries, the future of Sri Lanka's tropical forests are very much in the balance under the impact of man, his machines and of his own ingenuity to make the best of a given situation. Traditional methods as in logging and extration have been largely mechanised although the wisdom of indiscriminately following this pattern particularly in our mountainous wet zone and other sensitive forests is open to question. The destruction wrought over vast areas of forest in felling of a few trees are illustrated in the picture at top left, as well as in the picture on the cover.

The need to ensure greater optimisation of limited timber resources is now quite apparent. Air seasoning and application of suitable preservation treatment (bottom) are some of the methods for ensuring maximum prolonged utilisation of timber.

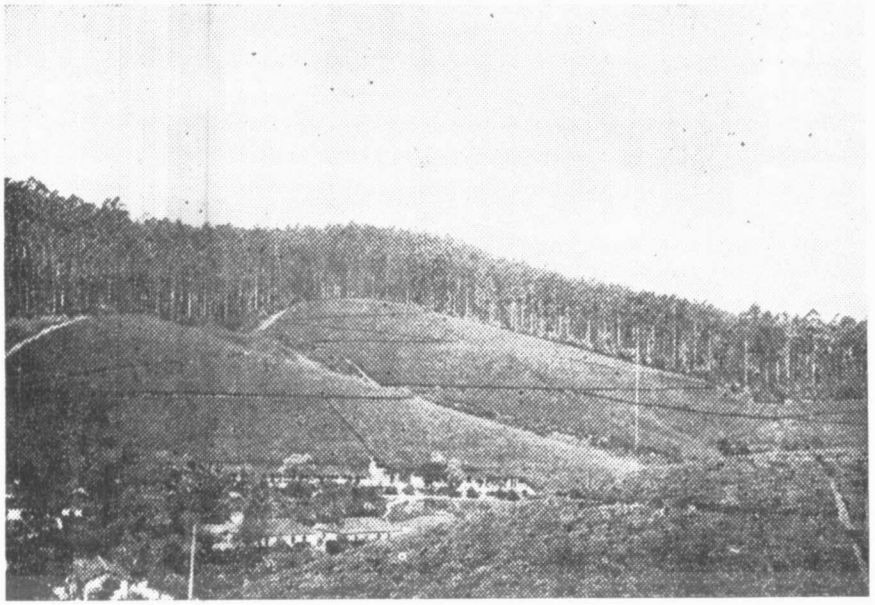


Other pictures on this page illustrate traditional haulage and loading of timber by elephants which although slower does minimal damage to forest growth, and the forest floor compared to machines (top). Elephants





are singularly efficient for slow haulage rafting of timber under certain conditions. For long haulage reliance is invariably placed on motorised vehicles. (centre left). *Some pictures are reproduced by courtesy of the Forest Department.*



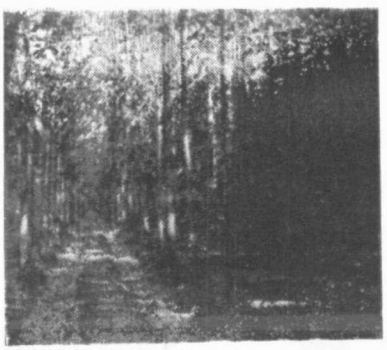
Low yield dry zone forest (in the background) replaced by Chena reforestation crop mix of teak and paddy. Several other crops are also grown by villagers on a 3 year term.

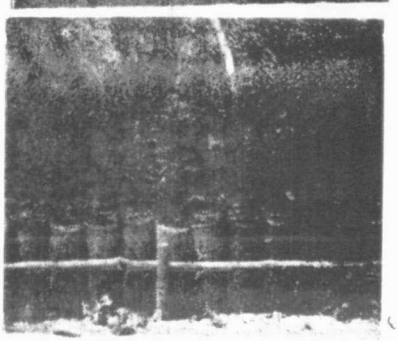
PLANTATIONS OR MAN-MADE FORESTS — are a part of the Forest Department's long term planned programme which when managed on sound scientific lines compensate for loss of natural forests.

Shelterbelts in the upcountry have been a pre-requisite to enabling human settlements and agriculture (top left).

Soil and water conservation measures are absolutely necessitated on steep ground. Picture at right shows terracing with brushwood.

A young stand of teak established under the Chena reforestation scheme with an initial density of 436 stems/acre. By silvicultural management this is reduced to about 50 stems/acre at maturity (over 50 years, depending on site) by a process of thinnings and crop care (below).





Polypot plants of pines raised in nurseries with the required fungus-roots vital for their nutrition. Pine and soft wood plantations are raised as long-fibre source material for paper pulp for Sri Lanka's paper mills (bottom left).

Mechanised afforestation of patana lands was resorted to in the early years of establishing eucalyptus plantations. The method was found to be capital intensive and has been replaced by labour intensive methods (bottom right).