

rain forest. The problems of adapting such species to the commercial production of pulp have not yet been fully solved, nor had a systematic programme of research been undertaken until recently. The conference noted with great interest a report by the French delegation regarding the successful conclusion of experiments for the pulping of a considerable number of species. Mixtures of as many as twenty-four tropical species have been successfully digested in a commercial plant in France and sample lots of good paper have been made from the resulting pulp. A pilot mill is under construction on the Ivory Coast to determine the practical possibilities on a commercial scale.

67. *Latin America*.—The population of this region, estimated to be 150,000,000 people, is about equal to that of North America, yet pulp-production is very small. The larger part of it is carried on in Brazil and Mexico, and is based upon raw materials from local coniferous forests. Latin America, however, contains about 715,000,000 hectares of productive forest land, although only $3\frac{1}{2}$ per cent. of this vast area carries conifer. Here, as in Africa, the possibilities for augmenting world pulp-supplies are enormous, providing that the social, technical, and economic problems connected with the utilization of tropical forests can be solved.

68. *Asia and Far East*.—Pulp-production in Asia fell from 1,200,000 tons in 1937 to 500,000 tons in 1948, largely because of the changed situation in Japan. Reports indicate that Japanese forests have for some years been heavily overcut, and until the benefits of reforestation have been realized the prospects for obtaining more pulp-wood is negligible. Plans to increase Japanese pulp output to 770,000 tons by 1955 depend on the possibilities of securing large imports of pulp-wood not yet in sight or on developing alternative raw materials such as rice straw.

69. In India at least one new pulp-mill is planned for erection in the near future, but in most parts of the country the local forest resources appear insufficient to support a large wood-pulp industry in addition to other demands of the increasing population. The Conference was advised that there are large forest resources of species highly suitable for pulp-manufacture in the north, and that the real difficulty at the moment is the lack of accessibility to such regions.

70. The situation in China precludes any estimate of future possibilities. It is believed that here again there are substantial forests located in areas very remote and difficult of access, but in the thickly populated areas the supplies of wood which might be converted into pulp are small. It is possible that substantial pulp-production may eventually be developed on the basis of bamboo.

71. In other countries of Asia, including Burma, Siam, Indo-China, Malaya, and the Philippines, there are extensive forests, but most of these are broad-leaved types. Indonesia also has vast tropical forests and, in addition, a considerable area of pine. Plans for a sulphate mill to be supplied by this pine were interrupted by the war, but are once more under active study.

72. *Oceania (Australia and New Zealand)*.—The Conference was informed that the present small production in New Zealand of 24,000 tons annually is to be increased to 155,000 tons by 1955, and may eventually reach 250,000 tons. This development is made possible by the extensive "exotic" forests of insignis pine and other conifers, whose rate of yield under New Zealand conditions is phenomenally high.

73. Australia produced in 1948 94,000 tons of pulp, and expects to increase her output to 180,000 tons by 1955. This will be done entirely on the basis of domestic forests. In view of the active forestry programmes it seems possible that the principal countries of this region may eventually be able to supply all or most of their own requirements for pulp.