

Kiln and energy plant design

With increased emphasis on the importance of added value, drying facilities are becoming a key area in sawmilling. Assistance in the design of several timber dryers has been provided. A current project involves the design and supervision of the construction of a 12 cubic metre capacity kiln in Western Samoa. This facility will enable Western Samoa to attain export standards, which will yield the sawmiller double the return compared with timber sold on the local market.

Project evaluation

Wood Technology has also linked its knowledge of wood and wood proces-

sing with economics in the evaluation of forestry projects. Work undertaken in Tonga on coconut sawmilling and forestry development is a recent example. This work was carried out for the New Zealand Official Development Assistance programme. This type of project evaluation work, coupled with specialist knowledge of wood and processing, should prove to be of wide interest.

Timber engineering

In addition to their traditional activities such as determining the strength properties of timber, the engineering group of the division is able to give advice on timber grading, and the use of timber in light frame construction. Assistance has

been provided to the Malaysian Forest Research Institute to commission a stress grading machine and to derive stress grading programmes for tropical timbers. A contribution has also been made to a United Nations Industrial Development Organisation project on light timber framing codes for developing countries.

There is now a growing awareness that the knowledge and expertise developed by the Wood Technology Division of the Forest Research Institute are of value to international forestry. The role for the division in tropical countries is expected to expand as services available are increasingly used by consultants and government agencies.

NZ consultancy firms assist Philippines

Peter Clark

Representatives of the NZ and Philippines Governments signed an Exchange of Notes on February 2, covering the initial five years of the Bukidnon Industrial Tree Plantation Reafforestation Project. The project was initially discussed at a meeting between President Aquino and the New Zealand Prime Minister, Right Hon. David Lange, when he visited the Philippines in March 1986. Noting that the destruction of forests was a major economic, social and environmental problem in the Philippines, President Aquino asked for help in this area of development. This request matched well with New Zealand's established expertise in forestry.

The Bukidnon project aims to address the economic, social and ecological crisis which the Philippines faces from forest denudation. It is an innovative project which will establish an industrial tree plantation to be managed on commercial lines.

The New Zealand Ambassador said that she hoped the Bukidnon project would prove a model of its kind. It would thereby be the seed from which the Philippines could establish managed plantation forests on a wide scale to meet the country's timber requirements and reduce the pressure for logging or virgin forest and other upland areas. This would generate significant economic and environmental benefits as the destruction of the upland forest has caused widespread soil erosion. A recent estimate suggested that around one billion cubic metres of material is being eroded

from the hills annually. Much of this material is being deposited in water channels, rivers and reservoirs rendering vast areas of land unsuitable for agriculture. In addition, waterways are silting up to such an extent that water supplies for agriculture, industry, power generation, and town use are threatened. The Bukidnon project concept aims therefore to have a major impact in promoting long-term Philippine growth, particularly in the agriculture sector.

The project will be located in the four municipalities around Malyabalay, the capital of Bukidnon province. It will cover an area of about 14,000 hectares. The Philippines expects to commit p 35 million for the first five years of the project and New Zealand up to \$NZ one million (p 13 million) annually. The Bukidnon project will be the major element in New Zealand's development assistance programme in the Philippines for the period ahead. There will be two New Zealand advisers based in Bukidnon. New Zealand also expects to fund other, smaller projects, to supplement the Bukidnon Industrial Tree Plantation Project. New Zealand, for example, is working with the Philippine National Oil Company (PNOC) on a social forestry project in its goethermal sites in the Visayas, and the Embassy expects to be able to fund a number of small projects in Bukidnon province directly from its Small Projects Fund. The Bukidnon project is a continuation of a major thrust of New Zealand's previous aid to the Philippines through the ASEAN-New Zealand Afforestation Project (ANZA) which was established in Northern Tarlac in 1979. The Bukidnon project will translate the lessons learnt from Tarlac to a commercial plantation forest.

New Zealand and the Philippines recognise that the project's success will hinge on "people acceptance". The appraisal report for the project therefore recommends extensive community participation programmes, including priority to employment, cash cropping of the land as it is developed, stewardship for families currently living in the project area, the development of an agricultural component in the project area, selected social programmes such as clinics, and the possibility of workers sharing in the return from growing the trees. There are also substantial financial, economic, and social benefits arising from the project for the immediate local community and for the province as a whole. When in full production industrial wood volume from the project will be about 420,000 tonnes per annum and the cash flow from the sale and logging of the trees is estimated at P 198 million per annum. When the forest is established, the project will provide permanent employment for 465 people with further work for 3700 people in utilisation operations.

Forenco Consultants Ltd and the Ministry of Forestry have combined forces to provide technical assistance to the project. This involves staff placements over the next five years covering the positions of: Senior Forestry Adviser, Management Systems Specialist, Nursery Specialist, Fire Control Officer, Training Officer, Utilisation Officer and Research Officer.

Mr Warren Ellis and Mr Gordon Moyle of Forenco have been appointed the first Senior Forestry Adviser and Management Systems Adviser respectively. Mr Paul Schroeder of MOF will shortly travel to the Philippines to set up the nursery.

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