Tropical Hardwood Trade in the Asia-Pacific Region

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Foreword

I would like to explain *why* the World Bank Group does research work, and why it publishes it. We feel an obligation to look beyond the projects we help to finance toward the whole resource allocation of an economy, and the effectiveness of the use of those resources. Our major concern, in dealings with member countries, is that all scarce resources, including capital, skilled labor, enterprise and know-how, should be used to their best advantage. We want to see policies that encourage appropriate increases in the supply of savings, whether domestic or international. Finally, we are required by our Articles, as well as by inclination, to use objective economic criteria in all our judgments.

These are our preoccupations, and these, one way or another, are the subjects of most of our research work. Clearly, they are also the proper concern of anyone who is interested in promoting development, and so we seek to make our research papers widely available. In doing so, we have to take the risk of being misunderstood. Although these studies are published by the Bank, the views expressed and the methods explored should not necessarily be considered to represent the Bank's views or policies. Rather they are offered as a modest contribution to the great discussion on how to advance the economic development of the underdeveloped world.

ROBERT S. MCNAMARA
President
International Bank for
Reconstruction and Development

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Glossary

BTN	Brussels Tariff Nomenclature
c.i.f.	Cost, insurance and freight
CPEs	Centrally Planned Economy Countries
f.o.b.	Free on board
Hardwood	Broadleaved species, nonconifers
Logs	A shorthand notation for sawlogs, veneerlogs, and logs for sleepers
Sleepers	Railroad sleepers or ties
SITC	Standard Industrial Trade Classification
Softwood	Coniferous species, conifers
Tropical Africa	The continent excluding South Africa
Tropical Asia-Pacific Region	Includes countries in South Asia, Southeast Asia and developing Oceania; excludes Japan, Korea, Taiwan, Australia, and New Zealand
Tropical Latin America	Central and south continent excluding Argentina, Chile, and Uruguay but including the Caribbean countries

Organizations

ASEAN	Association of Southeast Asian Nations
ECA	UN Economic Commission for Africa
ECE	UN Economic Committee for Europe
ECLA	UN Economic Commission for Latin America
EEC	European Economic Community (here, unless otherwise noted, EEC refers to The Six, i.e., France, Federal Republic of Germany, The Netherlands, Italy, Belgium, and Luxembourg)
FAO	UN Food and Agriculture Organization

GATT	General Agreement on Tariffs and Trade
IBRD	International Bank for Reconstruction and Development
IMF	International Monetary Fund
ITC	GATT International Trade Center
OECD	Organization for Economic Cooperation and Development
UNCTAD	UN Conference on Trade and Development
UNDP	UN Development Program
UNIDO	UN Industrial Development Organization

Measurement

BF	board feet; 1,000 BF of roundwood = 4.53 m^3(r); 1,000 BF of sawnwood = 2.36 m^3(s)
ha.	hectare; 1 ha. = 2.47 acres
m^3(r)	cubic meters of roundwood
m^3(s)	cubic meters of sawnwood
m^3WRME	wood raw material equivalent, including roundwood equivalent of wood residues consumed in the production of particle board, fiberboard, and wood pulp

Preface

The author is indebted to past and present colleagues in the Commodities and Export Projections Division of the World Bank for their encouragement in the course of preparing this paper. Thanks are due to Messrs. R.D.H. Rowe, A.S. Tarnawiecki, B. Varon, and M.R. Oberdorfer of the World Bank Group; S.L. Pringle and Theo Erfurth of the FAO Forestry Department; T.J. Peck of the FAO/ECE Timber Division; F. Schmithusen and H.M. Gregersen, forestry consultants to the World Bank Group; and D. Hair of the U.S. Forest Service for their helpful comments on earlier drafts. The author also benefited from a number of individuals and organizations consulted during field visits to the Asia-Pacific region in the spring of 1972. Statistical computations and the preparation of tables by Mrs. Helen Bothwell and Mrs. J.G.S. Chhabra are gratefully acknowledged. Ultimately, of course, views and conclusions expressed in the paper are the sole responsibility of the author.

KENJI TAKEUCHI

Summary

The main purpose of this paper is to highlight some policy issues facing tropical hardwood trade in the Asia-Pacific region. The paper attempts to answer three questions which are frequently posed in relation to this region:

How can log-exporting countries accelerate the development of forest industries and the growth of processed wood exports?

Is it possible for the major log-exporting developing countries in the region to increase their earnings from log exports through concerted action? A corollary question is: If the major log-exporting LDCs in the region should jointly try to discourage the exports of logs for the purpose of encouraging domestic processing, will they as a group suffer a loss, or reap a gain, in their earnings from log exports in the short run?

What should be the long-term targets in the management of forest resources in the Asia-Pacific region?

Tropical hardwood resources offer excellent opportunities for the economic development of the Asia-Pacific region, since world import demand for tropical hardwood will grow at 6.0 percent to 6.5 percent per annum (in roundwood equivalent volume) during the 1970 decade and prices of logs are expected to rise markedly in the latter half of the decade. The world's three largest exporters of tropical hardwood are in the Asia-Pacific region—the Philippines, Malaysia and Indonesia—and account for two-thirds (in volume) of tropical hardwood exports.

Earnings from tropical hardwood exports, including processed products, could increase at an average annual rate of 11 percent to 12 percent during the 1970s. These figures compare to a 4 percent growth rate pro-

jected for export earnings from all agricultural commodities of developing countries, through:

Increased *volume* (in roundwood equivalent) of exports. Exports of the three main producers totalled 23.5 million m^3(r) in 1968; this could increase to 43 m^3(r) by 1980.

Increased average *prices* of logs. There will be a growing shortage of tropical hardwood after 1975, unless new sources of supply—forests in Papua/New Guinea, Latin America and Africa—are tapped extensively. The estimated volume of exports (total sustainable yield minus projected domestic consumption) available from traditional sources will be inadequate to meet demand from importing areas. Since the unit cost of production in new areas is likely to be substantially higher, prices are bound to rise considerably after 1975.

Increased *value* of exports by increasing the proportion of processed products (sawnwood, veneers, plywood, and so forth) from the present 15 percent to 20 percent to a possible 65 percent, while reducing the exports of logs correspondingly.

Export earnings could rise to about $1.8 billion by 1980, compared to 1968 earnings of about $500 million. Realizing this potential requires active timber development policies in the region.

Roughly three-quarters of the logs exported by the Philippines, Malaysia, and Indonesia are destined for Japan; most of the rest go to Korea, Taiwan, and Singapore, which "re-export" these logs in processed form—primarily plywood but also sawnwood and veneers. The United States has been the main market for the plywood. Thus, there are basically three types of trading partners involved: log-exporting lesser developed countries (the Philippines, Malaysia, and Indonesia), in-transit processor lesser developed countries (Korea, Taiwan, and Singapore) and developed importer-consumers (Japan and the United States).

Although the Philippines and Malaysia have well-established wood processing industries, more than 80 percent of the tropical hardwood exports are still in the form of logs. Indonesia does not have a significant processing industry. Wood processing (processing of logs into sawnwood, veneers, plywood, and so forth) is an ideal vehicle to accelerate the industrialization of these countries at the present stage of their economic development. Wood exporting is a typically weight-losing (hence freight-cost-saving) activity and a relatively labor-intensive activity; also, wood exporting requires relatively simple technology and easy-to-learn skills and provides a good opportunity to industrialize "remote areas" (outer islands) on the basis of locally available resources.

The recent change in the industrial and trade strategy of the Philippines and Indonesia from being markedly inward-looking to outward-looking will have to be developed even further if they are to realize their maximum potential foreign exchange earnings from processed wood exports. Four measures, if adopted by the log-exporting countries, could contribute to the development of wood processing industries in these countries:

Discourage the exports of logs by jointly maintaining substantial export taxes on logs.

Encourage the growth of export-oriented wood processing industries by providing incentives.

Adjust forestry concession policies so as to discourage exports of logs and encourage those of processed products.

Improve infrastructure to induce rapid growth of export-oriented wood processing industries.

Imposing export taxes raises the question of whether the exporting countries will lose in terms of total foreign exchange earnings, since they will be selling less volume although they will get a higher average price per unit. Since the price elasticity of demand for log exports of the three major Asian exporters is probably less than unity or, at worst, not much larger than unity (except in an extremely high price range), by acting jointly to discourage their own log exports, the Philippines, Malaysia, and Indonesia would probably gain—or at worst not lose much—in terms of total foreign exchange earnings from logs, while benefitting from increasing their exports of higher value processed products.

In view of the anticipated change in the pattern of tropical hardwood trade, it appears to the advantage of the developed countries to "upgrade" their wood processing industries. They should discourage primary wood processing by reducing the tariff barriers to imports of processed wood products and encourage the specialization in the most sophisticated wood products. International financial institutions should probably follow a lending program in forestry which anticipates and fosters these long-run developments in the Asia-Pacific region. Investment opportunities can be found in infrastructure (internal land and sea transportation and public utilities), primary wood processing industries (mainly in the log-producing countries, secondary wood processing industries (mainly in the in-transit processor countries, fast-growing forestry plantations, pulp and paper projects, and forestry education.

Furthermore, possible investment strategies on the part of international financial institutions aimed at opening up currently "inaccessible"

tropical hardwood resources in Latin America and remote areas of Africa should be studied by these institutions, in view of the expected rising world prices of tropical hardwoods. Opening up new areas will restrain soaring prices but, since the costs of opening up these areas would be high, prices would likely stabilize at relatively high levels. The three Asian countries where costs of exploitation are much lower should be able to soak up a large part of the producers' surplus, if government policies and institutional arrangements are conducive.

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