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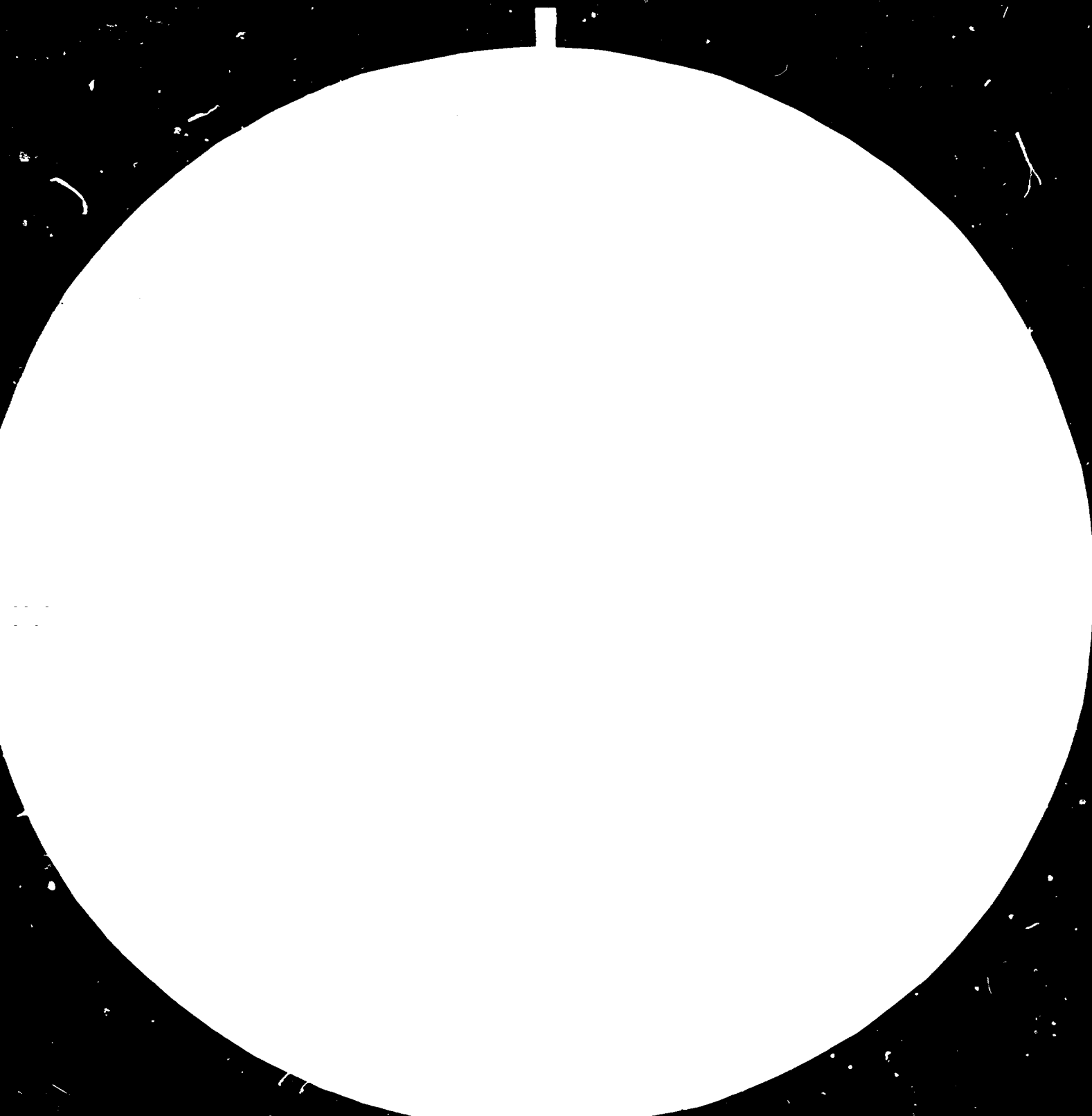
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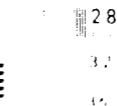
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Measuring Resolution, Part 1: ANSI

By Robert M. Schmitt, Director of Research and Development, IBM Corp.



11428



United Nations Industrial Development Organization

Distr.
LIMITED

ID/WG.371/16
29 April 1982

ENGLISH

Regional Preparatory Meeting for Asia in preparation
of the First Consultation on the Wood and Wood
Products Industry
Manila, Philippines, 22-26 March 1982

REPORT *

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PREFACE

The System of Consultations

The Second General Conference of the United Nations Industrial Development Organization (UNIDO), held at Lima, Peru, in March 1975, recommended that UNIDO should include among its activities a system of continuing consultations between developed and developing countries with the object of raising the developing countries' share in world industrial output through increased international co-operation.^{1/}

The General Assembly, at its seventh special session in September 1975, in its resolution 3362 (S-VII), decided that the System of Consultations called for by the Lima Declaration and Plan of Action should be established at global, regional, interregional and sectoral levels^{2/} and that UNIDO, at the request of the countries concerned, should provide a forum for the negotiation of agreements in the field of industry between developed and developing countries and among developing countries themselves.

The System of Consultations has been established under the guidance of the Industrial Development Board. At its fourteenth session, the Board decided to establish the System of Consultations on a permanent basis with the following main characteristics, including those described in its past decisions:

(a) The System of Consultations should be an instrument through which the United Nations Industrial Development Organization (UNIDO) would serve as a forum for developed and developing countries in their contacts and consultations directed towards the industrialization of developing countries;^{3/}

^{1/} "Report of the Second General Conference of the United Nations Industrial Development Organization" (ID/CONF.3/31), chapter IV, "The Lima Declaration and Plan of Action on Industrial Development and Co-operation", para.66.

^{2/} Official Records of the General Assembly, Seventh Special Session, Supplement no.1, para.3.

^{3/} Official Records of the General Assembly, Thirty-fifth Session, Supplement no.16, para.151(a).

(b) Consultations would also permit negotiations among interested parties at their request, at the same time as or after consultations;^{4/}

(c) Participants of each member country should include officials of Governments as well as representatives of industry, labour, consumer groups and others, as deemed appropriate by each Government;^{5/}

(d) Final reports of the Consultations should include such conclusions and recommendations as agreed upon by consensus by the participants as well as other significant views expressed during the discussion.^{6/}

Consultations on the Wood and Wood Products Industry

The Industrial Development Board, at its fifteenth session in May 1981, decided to include the First Consultation on the Wood and Wood Products Industry in the programme of consultation meetings to be convened in 1982-1983. In accordance with the established work programme for the preparation of the First Consultation and the Agreement signed between UNIDO and the Government of Finland, the First Consultation on the Wood and Wood Products Industry will be convened from 19 to 24 September 1983 in Helsinki, Finland.

In order to identify priority issues to be submitted for consideration at the First Consultation, the UNIDO secretariat will convene a Global Preparatory Meeting in November 1982.

Prior to the Global Preparatory Meeting, preparatory activities have been initiated at the regional level and they include:

- Preparation of regional papers on the wood and wood products industry in Africa, Asia and Latin America.
- Convening of Regional Preparatory Meetings for Africa, Asia and Latin America.

Accordingly, the Regional Preparatory Meeting for Asia was organized by the UNIDO secretariat from 22 to 26 March 1982 in Manila, Philippines. The basic objectives of this meeting were:

^{4/} Ibid., para.151(b).

^{5/} Ibid., para.152.

^{6/} Ibid., Thirty-second Session, Supplement no.16, para.163.

- Discuss the present situation of the wood and wood products industry in the region, its potential for expansion and future requirements in view of possible redeployment or reallocation of industrial capacities;
- Identify common and particular constraints which hamper the trend toward further development of primary and secondary processing in developing countries of the region;
- Examine and propose ways and means for international co-operation and action needed to overcome identified constraints;
- Select specific issues for further elaboration to be discussed at the Global Preparatory Meeting and for possible inclusion for submission to the First Consultation on the Wood and Wood Products Industry.

I. AGREED CONCLUSIONS AND RECOMMENDATIONS

1. The Meeting concluded that the following are the main constraints which hamper the development of the Wood and Wood Products Industry in the Asian region:

(i) Raw Material

- a) Reduced supplies of logs affect and will affect in the next decades the industry in timber importing countries and in countries with limited forest resources.
- b) Insufficient attention is being given to the harvesting, marketing and use of the commercially less accepted species.
- c) Present regeneration, rehabilitation and afforestation efforts are inadequate and need to be considerably increased and forest management techniques improved. Forest plantations have not received enough attention in most of the countries so far, mainly because of financial constraints and lack of knowledge of tropical sericulture.
- d) Residues in the forests are only marginally used because there is as yet not enough infrastructure and no technology available to make extraction more economical.

(ii) Processing

- a) The use of residues is considerably lower in developing than in developed countries, due to insufficient integration, lack of a wide enough industrial base and difficulties to market products manufactured from them.
- b) Machinery and equipment are in many cases obsolete and more advanced technology has often proven to be inappropriate, especially in small-scale industries and when employment considerations are taken into account. Maintenance is often insufficient.
- c) There is an inadequate number of trained personnel at the skilled, supervisory and management levels as well as the necessary technical support staff (designers, consultants, etc.)
- d) Production planning and control and quality control are often inadequate.

(iii) Trade, Transport and Marketing Problems

- a) Protectionist restrictions are posed by developed countries by means of tariffs escalating with the level of processing, quotas and other non-tariff barriers.

- b) Freight rates are fixed according to the bargaining power of the parties involved. Conference rates discriminate against exports of processed products.
- c) Shipping services are often insufficiently developed, partly due to poor infrastructure of ports.
- d) Insufficient effective promotion activities due to inaccurate or lack of marketing data and information as well as inadequate marketing channels affect the capacity to operate in the international market.
- e) Commercially less-accepted species are insufficiently promoted and sufficient provision has not been made to allow for their use in existing standards and building specifications.
- f) For secondary wood products there is a lack of standards and codes of practice. Furthermore, there is a lack of sufficient human resources for design of products and timber engineering.

(iv) Finance

- a) Financial assistance is inadequate for:
 - forest regeneration and rehabilitation activities
 - infrastructure
 - expansion of processing facilities and acquisition of more advanced processing technology
 - research and development
 - training at all levels

(v) Research and Development

- a) Adequate channels to disseminate information in the region and of fora to discuss work in progress are lacking.
- b) Research activities in problems related to the use of residues and commercially less-accepted species have not been given the priority they deserve.
- c) Inadequate research and development programs aimed at solving problems of the industry.

(vi) Redeployment of Industry and Regional Cooperation

There is:

- a) Lack of adequate long-term arrangements between timber exporting and importing countries to regulate supplies of input material for industry in unprocessed and semi-processed form.

- b) A need to solve production, marketing and transport problems through joint-ventures or other contractual arrangements between developed and developing countries or at a regional level.
- c) Insufficient local production of appropriate equipment for the region.
- d) Need for more cooperative efforts in training and deployment of available manpower.
- e) A need for better use of existing processing facilities.

2. The Meeting recommended the following priority issues to be further elaborated and discussed at the Global Preparatory Meeting for consideration at the First Consultation:

(i) Strengthening the raw material base through:

- a) Improved management of natural forest resources and logging techniques;
- b) Solving problems related to land use planning, shifting agriculture and fuel wood shortage and decreasing pressures leading to deforestation of vast areas in the region;
- c) Reforestation and rehabilitation of degraded forest;
- d) Increased use of commercially less-accepted species.

(ii) Development of primary and secondary processing through:

- a) Integrated processing and better use of residues;
- b) Selection and local production of appropriate machinery and equipment;
- c) Improvement of training at skilled, supervisory and management levels;
- d) Introduction of adequate product standards, quality control, design and timber engineering skills.

(iii) Improvement of market access of processed products in developed countries through:

- a) Abolition of protectionist policies by developed countries;
- b) Coordinated policies in shipping;
- c) Improvement of marketing through regional efforts or joint-ventures and innovative marketing arrangements.

(iv) International, regional and subregional cooperation through:

- a) Long-term arrangements for the supply of input materials for industry in timber importing countries for further processing;
- b) Establishment of mutually beneficial contractual arrangements among developing countries or between developed and developing countries to solve production, marketing and transport problems for all products;

- c) Promotion of the local production of machinery and ancillary materials and equipment;
- d) Coordination of training and research and development activities on a regional basis through a more rational use of existing facilities at national level.

II. ORGANIZATION OF THE MEETING

3. The Regional Preparatory Meeting for Asia was convened in Manila, Philippines, from 22 - 26 March 1982. The Philippine Wood Manufacturers' Association, the Chamber of Furniture Industries in the Philippines and the Institute for Small-Scale Industries of the University of the Philippines accepted to host the Meeting.
4. There were 30 persons attending the Meeting, including 22 participants from 9 countries, 5 representatives from UN organizations and 3 observers from the Philippines.
5. The Meeting was formally opened by the Assistant Minister of Natural Resources of the Republic of the Philippines, Dr. Celso Roque, who also informed the Meeting about the new policies of his Ministry.
6. The Meeting elected Mr. Ernesto F. Sanvictores as Chairman and Mr. Rafael T. Lapuos as Vice-Chairman.
7. Mr. M. Janjić, Senior Industrial Development Officer of the Negotiations Branch, explained the origin and scope of the UNIDO System of Consultations and stressed the unique features of UNIDO's consultations, namely (a) the continuing nature of the System, (b) the emphasis on reaching consensus, and (c) the direct contribution made by representatives of industry.
8. The Meeting adopted the following agenda:
 - (i) Wood and Wood Processing Industry in the region
 - (ii) Main topics to be discussed
 - (iii) Redeployment of industry and regional and sub-regional co-operation
 - (iv) Consideration and adoption of the report of the Meeting.
9. Mr. Horatio Brion, UNIDO Consultant, presented his Regional Situation Paper: The Wood and Wood Products Industry of Asia, its current status (1980-1981) and future development.
10. In the pre-session document, Problem Areas in the Wood and Wood Products Industry in the Asian Region (UNIDO/PC.37), the UNIDO secretariat described major trends of the sector and main problem areas in the Asian region. The other documents submitted to the Meeting are listed in Annex II.
11. The Meeting adopted the Report of the Meeting at its final session on 26 March 1982.

III. SUMMARY OF DISCUSSIONS

12. The Meeting agreed to discuss the problems of the sector according to the order proposed in the agenda.

Raw Material

13. The Meeting analysed the trends in the present and future supply of logs in the region and concluded that, with the exception of a few countries with large forest resources, reduced supplies of logs already affect and will increasingly affect in the next years the wood processing in the region. It was also felt that the decision of major log exporters to phase out exports in unprocessed form in the years to come, will alter drastically the regional scene.

14. The fact that most tropical forests are being "creamed" for only a few selected species, was recognized to be a major constraint to the rational use of forests. Furthermore, there was general agreement that the raw material base could be increased through the use of commercially less-accepted species and that insufficient attention is being given at present to the harvesting, marketing and use of these species. In this connection it was pointed out by several participants that the experience acquired by countries, like India, which have been forced by their reduced resources to make use of most of the species available should be especially taken into account. The use of rubberwood was mentioned in this relation.

15. Participants stressed the fact that the consumption of wood as fuel still represents nearly half of the world's production of unprocessed wood. They also pointed out that 85 % of the wood production in developing countries is presently used as fuel and that population increase and increased standards of living will add even more pressure to the demand for fuel wood. In this connection they underlined the need to ensure a more rational use of wood as fuel through e.g. the production of charcoal out of wastes from the forest.

16. It was generally recognized that present regeneration, rehabilitation and afforestation efforts are inadequate and need to be considerably increased and forest management techniques improved. It was also noted that forest plantations have not received enough attention in most of the countries so far, mainly because of financial constraints and lack of knowledge of tropical silviculture.

17. Participants stressed the fact that residues in forests are only marginally used because the lack of infrastructure to transport them from remote areas and also lack of technology available do not make their extraction economically viable.

Processing

18. Participants expressed the view that the use of residues in processing is considerably lower in developing than in developed countries due to insufficient integration, lack of a wide enough industrial base and difficulties to market products manufactured from them. To ensure a maximum use of raw material, product diversification should be encouraged into items as panels, component parts, shelving, cabinets, door and window frames, mouldings, knockdown furniture, flooring and lamination. In this connection it was pointed out that unlike wood processing complexes in developed countries designed to produce a variety of products and qualities, production units in developing countries have difficulties in marketing low grade timber and products making use of residues due to limited local markets. It was suggested that investigations should be carried out to assess the feasibility of utilizing the large volume of low-grade logs, lower grades of sawntimber and industrial residues as a raw material supply for secondary and tertiary processing activities.

19. There was general agreement that machinery and equipment are in many cases obsolete and that more advanced technology has often proven to be inappropriate, especially in small-scale industries and when employment considerations are taken into account. It was further indicated that a lot of manufacturers are disappointed by the wrong selection of wood working machineries, due to poor information or wrong advertisements and that seminars or training programs should be regularly organized, in order to educate producers in the proper selection of machineries and equipment. Experiences were quoted of inadequate after delivery service and the need to guarantee international standards for the production by sellers of machines was emphasized.

20. It was stated that, with some exceptions, most of the woodworking machinery is still being imported and that local manufacture should be considered. It was suggested that a first step might be to produce kiln dry elements, and basic machines like band saws, planers, sanding machines, etc.

21. Participants stressed that there are an inadequate number of trained personnel at the skilled, supervisory and management levels as well as the necessary technical support staff, like designers, consultants, etc. In this connection it was mentioned that help and assistance from UN agencies are needed to provide better training facilities and information services. The strengthening of

existing facilities for training and the implementation of programmes on regional basis was strongly recommended by the Meeting.

22. Several participants asserted that plant lay-out and production planning as well as quality control are often inadequate and should be improved.

Trade, Transport and Marketing Problems

23. While analysing the market situation, it was recognized that due to the high concentration of demand in a few developed countries there exists a disparity in bargaining power in favour of importing countries. It was said that the international timber market is a "buyer's market", characterized by its inherent free-competition practices, which can be so harsh that only strong exporters are able to survive. Moreover, it was pointed out that prices are unstable and do not cover the cost of harvesting, transport and reinvestment to maintain supplies in the future.

24. The Meeting concurred in that protectionist measures by developed countries in the form of tariff and non-tariff barriers constitute a serious obstacle to the increase of exports with higher value-added from developing countries. It was pointed out that tariffs tend to escalate with the degree of processing and therefore discriminate against processed products. It was furthermore noted that since the cost of logs represents a very high proportion of the cost of the finished product, the effective rate of protection in developed countries tends to be extremely high.

25. Participants drew attention to the fact that shipping costs make up a very high proportion of export values and that freight rates are fixed according to the bargaining power of the parties involved. The need of measures to reduce shipping costs was stressed, e.g. through the use of bulk carriers and chartering of vessels or use of services of "outsiders" to avoid conference freight rates. It was also pointed out that conference rates discriminate against exports of processed products by charging considerably higher rates for products with higher added-value. The Meeting recognized the fact that shipping services are often insufficiently developed, partly due to poor infrastructure of ports. Domestic shipping services are a particular problem in countries in insular East Africa.

26. Several participants drew particular attention to the insufficient effective promotion activities due to inaccurate or lack of marketing data and information as well as inadequate marketing channels. Sudden price fluctuations result from changes in the world's timber market situation and it is difficult for producers and exporters to get informed of these fluctuations in time to make the necessary quick adjustments to overcome the aftermath. It was recognized

that this affects the capacity of the firms to operate in the international market, specially in the case of medium-sized enterprises without strong international connections.

27. The view was supported that commercially less-accepted species are insufficiently promoted and that, for example, not sufficient provisions have been made to allow for their use in existing standards and building specifications. It was also felt that for secondary wood products there is a lack of standards and codes of practice. The Meeting agreed that for product development there is a lack of sufficient human resources for design of products and for timber engineering.

Finance

28. The Meeting recognized that in order to meet the financial requirements of the sector, substantial funds would be needed. Present financial assistance is inadequate for:

- (a) forest regeneration and rehabilitation activities;
- (b) infrastructure;
- (c) expansion of processing facilities and acquisition of more advanced processing technology;
- (d) research and development;
- (e) training at all levels.

Research and Development

29. Several participants emphasized that adequate channels to disseminate information in the region and fora to discuss work in progress are lacking. It was also noted that research activities in problems related to the use of residues and commercially less-accepted species have not been given the priority they deserve. Research and development programmes aimed at solving problems of the industry were considered to be inadequate.

Redeployment of Industry and Regional Co-operation

30. Participants expressed the view that there is a lack of adequate arrangements between timber exporting and importing countries to regulate supplies of input material for industry in unprocessed and semi-processed form. In this connection it was suggested that arrangements allowing for increased processing in developing countries and adequate supply of input material for importing developed and developing countries might be worked out.

31. Concern about the effect of increased production capacities in the region was voiced by some participants. It was noted that in an extremely competitive market like plywood, for example, a situation of ruinous competition could arise. It was suggested, therefore, that the question of redeployment in the region should be considered taking into account the aim of timber producing countries to increase on-the-spot processing and employment and the need for a more rational utilization of production capacities.

32. There was general agreement that there is a need to solve production, marketing and transport problems through joint-ventures or other contractual arrangements between developed and developing countries or at a regional level. In this connection it was stated that cooperation among countries will cover a wide range of possibilities like cooperation in marketing to penetrate the international market, as well as measures to stabilize the price of wood products and others. Participants suggested that to overcome marketing problems developing countries might consider entering joint-venture arrangements with developed countries of the region. The need of cooperation among developing countries was also stressed in this connection.

33. The Meeting felt that there is still insufficient local production of appropriate equipment in the region and a need for more co-operative efforts in training and deployment of available manpower.

Annex I

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Annex II

LIST OF DOCUMENTS

Problem areas in the Wood and Wood Products Industry in the Asian Region
(UNIDO/PC.37)

Regional Situation Paper: The Wood and Wood Products Industry of Asia, its
current status (1980-1981) and future development by Horatio B. Brion

A brief account of China's Wood Industry by Wang Kai (ID/WG.371/1)

A brief report on the Wood and Wood Products Industry in India by V. Sivananda
(ID/WG.371/2)

Wood and Wood Products Industry in Indonesia by A. Badawi Kamal (ID/WG.371/3)

The Wood Processing Industry in Indonesia by the Directorate General of
Forestry (ID/WG.371/4)

Concise view on the development of wood-based industry in Indonesia by
S. Karsudjono (ID/WG.371/5)

Secondary Wood and Rattan Processing Industry in Indonesia by Jin Mintahir
(ID/WG.371/6)

Wood-Processing Industries as a basis for Indonesia's Economic Development by
J.F. Wattimena (ID/WG.371/7)

The Wood and Wood Products Industry in Peninsular Malaysia by Lew Wing Hing
(ID/WG.371/8)

Profile on the Wooden Furniture Industry in Peninsular Malaysia by Woo Chark Kum
(ID/WG.371/9)

Papua New Guinea Wood and Wood-Based Industries, Past and Present by G.E. Gresham
(ID/WG.371/10)

A Brief Background of the Philippine Wood and Wood Products Industry by E.C. Amio
(ID/WG.371/11)

Incentives to the Mechanical Wood Processing Industries in the Philippines by
E. Jaranilla (ID/WG.371/12)

A Brief on the Timber Industry Situation in Singapore by Wong Liang Han
(ID/WG.371/13)

Thailand Country Paper by Hutasingh Vandee (ID/WG.371/14)

Forest Industry in Japan by T. Sato (ID/WG.371/15)

