

INTERNATIONAL TROPICAL TIMBER COUNCIL  
Tenth Session  
Quito, Ecuador, 29 May - 6 June 1991

Distr. GEN.  
ITTC(X)/2  
19 April 1991  
Original: ENGLISH

DRAFT ANNUAL REPORT FOR 1990

(Item 15 of the Provisional Agenda)

NOTE BY THE EXECUTIVE DIRECTOR

Pursuant to Article 28 (1) of the International Tropical Timber Agreement, 1983, the Council is requested to publish, within six months after the close of each calendar year, "an Annual Report on its activities and such other information as it considers appropriate".

This draft Annual Report covering 1990 has been prepared by the Secretariat giving an account of activities concerning the Council and its other subsidiary organs and bodies and general developments of relevance to the Organization. As in the previous Annual Reports, this Report is divided into four parts. The first deals with institutional, organizational and administrative matters, Sessions of the Council, and its Permanent Committees and general developments in the Organization including the Secretariat. The latter three give detailed reports on the operational work of the Organization both in terms of project and non-project activities in the fields of Economic Information and Market Intelligence, Reforestation and Forest Management and of Forest Industry.

Some other useful records of information are included as Annexes to this Report.

Table of Contents

	<u>pages</u>
<b>PART 1 ORGANIZATION, ADMINISTRATION AND SUMMARY OF ACTIVITIES</b>	
1.1 Membership	3
1.2 International Tropical Timber Council	4 - 8
1.3 The Permanent Committees	9 - 11
1.4 Summary of Project and Pre-Project Activities	11 - 12
1.5 The Secretariat	12
<b>PART 2 ECONOMIC INFORMATION AND MARKET INTELLIGENCE</b>	
2.1 Pre-Projects	13 - 14
2.2 Projects	14 - 25
2.3 Non-Project Activities	25 - 27
2.4 Statistical Operations	27 - 29
<b>PART 3 REFORESTATION AND FOREST MANAGEMENT</b>	
3.1 Overview	30
3.2 Pre-Projects	30 - 35
3.3 Projects	36 - 65
3.4 Non-Project Activities	65 - 71
3.5 Ecology	71
<b>PART 4 FOREST INDUSTRY</b>	
4.1 Pre-Projects	72 - 77
4.2 Projects	77 - 103
4.3 Other Activities	103 - 104
<b>Annexes</b>	
1 Status of Members as at 31 December 1990	105
2 Decision 3(IX) The Promotion of Sustainable Forest Management: A Case Study in Sarawak, Malaysia	106 - 107
3 General Tropical Timber Market Statement, 1990	108 - 110
4 Schedule of Official Travel and Participation at Conferences	111 - 117
5 Contributions to the Special Account - 1990	118
6 Administrative Budget 1991	119 - 122

1 ORGANIZATION, ADMINISTRATION AND SUMMARY OF ACTIVITIES

1.1 Membership

During the year under review the Republic of Colombia, the Republic of Togo, the Kingdom of Nepal and the Republic of Zaire acceded to the International Tropical Timber Agreement, 1983 on 27 March 1990; 8 May 1990; 3 July 1990 and 20 November 1990 respectively. By the end of the year, ITTO had a membership of 48 Members comprising 22 producing countries, 25 consuming countries and the EEC. ITTO's member countries account for 85 percent of the world's productive closed tropical forests and 96 percent of international trade in tropical timber.

The 48 Members of ITTO at the end of 1990 are as follows:

Members

Producers

Bolivia  
Brazil  
Cameroon  
Congo  
Colombia  
Côte d'Ivoire  
Ecuador  
Gabon  
Ghana  
Honduras  
India  
Indonesia  
Liberia  
Malaysia  
Panama  
Papua New Guinea  
Peru  
Philippines  
Thailand  
Togo  
Trinidad and Tobago  
Zaire

Consumers

Australia  
Austria  
Canada  
China  
Egypt  
European Economic Community  
Belgium/Luxembourg  
Denmark  
France  
Germany  
Greece  
Ireland  
Italy  
Netherlands  
Portugal  
Spain  
United Kingdom of Great Britain  
and Northern Ireland  
Finland  
Japan  
Nepal  
Norway  
Republic of Korea  
Sweden  
Switzerland  
Union of Soviet Socialist Republics  
United States of America

Details of ratification, acceptance, approval and accession are contained in Annex I.

1.2 International Tropical Timber Council

1.2.1 Officers of the Council

The Council at its Seventh Session unanimously elected Dr. Markku Simula (Finland) as Chairman and Mr. Sumarsono Martosudigdo as Vice-Chairman for 1990. At its Ninth Session held in Yokohama from 16 to 23 November 1990, the Council elected Mr. Ernesto Sanvictores (Philippines) and Mr. David K. Boulter (Canada) as Chairman and Vice-Chairman respectively for 1991. All these elections were made as usual, following informal consultations between Members.

1.2.2 Eighth Session of the Council

The Eighth Session of the Council was held in Denpasar, Bali, Indonesia, from 16 to 23 May 1990 at the Hotel Bali Beach except for the first day of the Session. By invitation of the Government of Indonesia, a Special Opening Ceremony, at which His Excellency President Soeharto delivered an address, was held at the Presidential Palace in Jakarta on the morning of 16 May 1990. This Special Opening Ceremony was also addressed by the host Minister of Forestry, Mr. Hasjrul Harahap; the Chairman of the Council, Dr. Markku Simula; and the Executive Director, Dr. B.C.Y. Freezailah.

The Opening Session was held in the afternoon of 16 May 1990 at Hotel Indonesia in Jakarta. It was attended by special guests including His Royal Highness Prince Bernhard of The Netherlands; Mr. Hasjrul Harahap, the host Minister of Forestry; Mr. Emil Salim, the Minister of State for Population and Environment of Indonesia; Tan Sri Abdul Taib Mahmud, Chief Minister of Sarawak, Malaysia; the Earl of Cranbrook, Leader of ITTO Mission to Sarawak; and Mr. P. Bukman, Minister of Foreign Trade of The Netherlands.

The Council endorsed the draft Action Plans and Work Programmes in the fields of Economic Information and Market Intelligence and Forest Industry. It was further agreed to establish a Panel of Experts to integrate the texts of the three Action Plans into a comprehensive ITTO Action Plan.

At this Session, the Council adopted the text of "ITTO Guidelines for the Sustainable Management of Natural Tropical Forests" and commended the Guidelines as an international reference standard to Members and the international community at large as a major contribution towards the goal of sustainable utilization, and conservation of tropical forests and their genetic resources.

The Action Plan and Work Programme in the field of Forest Industry endorsed by the Council contains reference to ITTO's Target 2000. The Year 2000 is ITTO's target year for all tropical timber entering world trade to be produced from sustainably managed forests.

The Earl of Cranbrook, Leader of the ITTO Mission to Sarawak, presented to the Council the Report of the Mission which was distributed to all Members and observers at the Session. In view of the importance of the findings of the Mission and the lack of time for studying the Report, the Council decided to defer its consideration to the Ninth Session. However, an informal discussion was held where the Leader of Mission gave further details and provided clarification sought by participants.

On Rule 32 of its Rules of Procedure concerning the languages of the Organization, the Council, by consensus, decided that:

- i) The official languages of the ITTO shall be Chinese, English, French, Russian and Spanish;
- ii) Due to financial constraints the language services will, for the time being, be limited to English, French and Spanish;
- iii) Specific approval of the Council shall be required for arranging technical facilities for simultaneous interpretation in Chinese and Russian languages.

Furthermore, the Representatives of China and the U.S.S.R. stated that in the interest of avoiding measures in respect of the above Council decision, both Members did not intend, for the remainder of the duration of the International Tropical Timber Agreement, 1983, to initiate efforts to implement the use of their languages beyond the provision of arranging technical facilities for simultaneous interpretation for each language at the Council Session.

The Council noted the recommendations of its three Permanent Committees as contained in their reports for the Sixth Sessions and approved 16 projects. Eleven projects were authorized for financing for immediate implementation. Three pre-projects were also approved and financed for immediate implementation.

The following pledges of contributions were made:

FEDERAL REPUBLIC OF GERMANY .....	1 million Deutschmark (approx. \$588,000)
JAPAN .....	\$20,132,000
THE NETHERLANDS .....	140,000 Dutch guilders (approx. \$72,000)

The Council took note of the Auditors Reports for the Administrative and Special Accounts for 1989.

#### 1.2.3 Ninth Session of the Council

The Ninth Session of the Council was held in Yokohama from 16 to 23 November 1990. The new Mayor of Yokohama, H.E. Dr. Hidenobu Takahide, addressed the Council at its Opening and pledged the continued support and assistance of the City of Yokohama. In addition, on behalf of H.E. Mr. Luis Marchand Stens, Chancellor of Peru, H.E. Mr. Luis Macchiavello, the Ambassador of Peru in Japan, read a message sent to the Council.

Two working Groups were established. The first Working Group will prepare "Guidelines for Management of Tropical Forest Plantations" following the format of the guidelines for natural tropical forest management. The guidelines should define criteria by which sustainability may be assessed with particular attention to environmental, social and economic consideration. The second Working Group was given the task to prepare a draft for an ITTO document on incentives for tropical forest management. Both Working Groups would comprise representatives from ITTO's producer and consumer Members, conservation NGO's, timber trade and relevant organizations.

In order to strengthen ITTO's project activities, the Council decided to establish an expert panel for technical appraisal of new project proposals. The panel may make recommendations for adjustments to these project proposals to ensure their technical soundness. In addition the panel will be given the task of screening project proposals, taking into account the ITTO Action Plans and Work Programmes. The first expert panel will be convened at least 14 weeks in advance of the Tenth Session of the Council. Within the same context, the Council also decided to appoint two independent consultants to review the existing procedures under ITTO's Project Cycle and prepare a report with costed options for the improvement of the Project Cycle.

The Council had a full discussion on the ITTO Mission Report to Sarawak which was presented and circulated at the last Council Session. The Earl of Cranbrook, Leader of the Mission made some opening remarks on the findings of the Mission and stated that it was the overall assessment of the Mission that sustainable forestry in Sarawak could be achieved, was being achieved in some respects but failed in others. This report generated a great deal of interest and debate after the initial statement by the Government of Malaysia. The State Government of Sarawak accepted the Report as fair and very constructive and accepted the recommendations in principle and was taking measures to overcome the inadequacies and weaknesses in its forest management. Accordingly the authorities in Sarawak were taking steps to increase the extent of the Permanent Forest Estates and Totally Protected Areas to six million and one million ha respectively, reduce logging and reserve two forest areas to cater for the traditional needs of the Penan Community. In addition project and pre-project proposals were being submitted to ITTO for assistance in man-power development, to strengthen forest industry development and to generally improve forest management practices. On the Sarawak discussion statements were made by two representatives of the Penans from Sarawak (one of whom spoke in his native dialect), the Representatives from the EEC, the Nordic countries, Japan, Switzerland, U.S.A. and Australia, conservation NGO's and UCBT among others. The Council adopted the Decision contained in Annex II on the ITTO Mission to Sarawak.

The Council decided that ITTO should actively participate in and contribute to both the Tenth World Forestry Congress to be held in Paris

from 17 to 26 September 1991 and the U.N. Conference on Environment and Development (UNCED) to be held in Rio de Janeiro from 1 to 12 June 1992. In conjunction with the Tenth Council Session to be held in Quito, Ecuador, a Round Table will be convened on "The Agenda for Trade in Tropical Timber from Sustainably Managed Forests by the Year 2000". The outcome of this Round Table could serve as part of ITTO's contribution to the UNCED.

The Council considered the draft Integrated ITTO Action Plan prepared by a panel of experts. The final text of the ITTO Action Plan was approved by Council after certain amendments were made to the draft.

The Council approved 23 projects and authorized the financing of 17 projects for immediate implementation. Two projects under implementation were approved for additional funding and extension. Seven pre-Projects and activities were also approved and authorized for financing for immediate implementation.

New contributions to ITTO's Special Account were pledged at this Council Session as follows:

U.S.A. ....	\$1 million
JAPAN .....	Yen 774.5 million (approx. \$6 million)
NORWAY .....	\$220,000
THE NETHERLANDS .....	DFL 600,000 (approx. \$350,000) (previously pledged)
SWEDEN .....	(exact contribution to be notified later)
JAPAN LUMBER IMPORTERS ASSOCIATION ....	Yen 10 million (approx. \$80,000)

The Council approved the Administrative Budget of the Organization for the Year 1991 totalling \$3,173,672 of which Members' assessed contribution amounted to \$3,081,300.



1.3 The Permanent Committees

1.3.1 Officers of the Permanent Committees

During the year Mr. S. Makon Wehiong (Cameroon) and Mr. David K. Boulter (Canada) served as Chairman and Vice-Chairman of the permanent Committee on Economic Information and Market Intelligence. At its Seventh Session, the Committee elected Dr. Gary R. Lindell (U.S.A.) as Chairman and Mr. S.K. Appiah (Ghana) as Vice-Chairman for 1991.

Mr. Enrique Toledo (Peru) and Mr. E.M. Lammerts van Bueren (Netherlands) led the Committee on Reforestation and Forest Management as its Chairman and Vice-Chairman during the year respectively. At the Seventh Session, this Committee unanimously elected Mr. E.M. Lammerts van Bueren (Netherlands) and Dr. Amantino Ramos de Freitas (Brazil) as its Chairman and Vice-Chairman for 1991.

During the year under review Dr. Gary R. Lindell (U.S.A.) and Dato' Baharuddin Hj. Ghazali (Malaysia) served as Chairman and Vice-Chairman of the Committee on Forest Industry. For 1991, the Committee elected Dato' Baharuddin Hj. Ghazali (Malaysia) as its Chairman and Professor Nils-Erik Nilsson (Sweden) as Vice-Chairman at its Seventh Session.

1.3.2 Sixth Sessions of the Permanent Committees

The Sixth Sessions of the three Permanent Committees were held in Denpasar, Bali, Indonesia, from 16 to 23 May 1990.

ITTO'S second Market Discussions on market review and outlook took place on 17 and 18 May 1990 in a joint Session of all three Committees. The main theme of the Discussions was the development of value-added processing of tropical timber products in the Asia-Pacific region. Two other topics on which presentations were made were 'The Forest Resources Situation, the Timber Trade and Industry of Indonesia' and 'The Timber Situation and Prospects for India'. The synthesis of the market developments and of the special topics was released in a General Market Statement.

The Committees technically appraised 18 project proposals and recommended 16 of these proposals to the Council for approval. The Committees also reviewed pre-projects currently underway and decided to implement three new pre-projects and activities.

The Committees on Economic Information and Market Intelligence and Forest Industry adopted their Action Plans and Work Programmes as formulated by their respective Panels of Experts. In recommending these documents for approval by the Council, the Committees also suggested that the three separate Action Plans be integrated into a comprehensive ITTO Action Plan.

### 1.3.3 Seventh Sessions of the Permanent Committees

The Seventh Sessions of the Permanent Committees were held in Yokohama from 16 to 23 November 1990. The Committees technically appraised 27 project proposals and recommended 23 of these proposals to Council for approval. In addition, the Committees decided to implement seven pre-projects and other activities.

The Committees discussed and adopted their Work Programmes for 1991 to implement their respective Action Plans. It was also noted that Secretariat and other resources must be increased to enable the successful implementation of these Work Programmes.

The Committee on Economic Information and Market Intelligence discussed and agreed on the theme for the 1991 Market Discussions "Trends in the Trade of Tropical Timber Products in the Latin American/Caribbean Region". In addition, the Committee decided to propose a Round Table immediately following the Market Discussions to focus on "The Agenda for Trade in Tropical Timber from Sustainably Managed Forests by the Year 2000".

The Committee on Reforestation and Forest Management decided to establish two Working Groups; one Working Group would have the task of preparing an ITTO document on incentives for tropical forest management (with inputs from the pre-project "Incentives in Producer and Consumer Countries to Promote Sustainable Development of Tropical Forests") whilst

the other Working Group will develop guidelines for management of tropical forest plantations. The Governments of The Netherlands and Germany generously volunteered to contribute consultancy services to prepare draft documents for these Working Groups.

1.4 Summary of Project and Pre-Project Activities

During the year under review, a total of ten pre-projects and activities were approved and financed for implementation at a cost of \$1,521,042 as shown in Table 1.

Table 1

PRE-PROJECTS AND ACTIVITIES APPROVED FOR FINANCING

	<u>Eighth ITTC</u>		<u>Ninth ITTC</u>	
	<u>No.</u>	<u>\$</u>	<u>No.</u>	<u>\$</u>
Economic Information and Market Intelligence	-	-	-	-
Reforestation and Forest Management	3	499,500	3	426,958
Forest Industry	-	-	4	594,584
<b>Total</b>	<b>3</b>	<b>499,500</b>	<b>7</b>	<b>1,021,542</b>

At the Eighth and Ninth Sessions of the Council, a total of 39 projects were approved and 25 of them (plus three others approved at earlier Council Sessions) were authorized to be financed for immediate implementation as shown Table 2.

Table 2

SUMMARY OF APPROVED AND FUNDED PROJECTS

	<u>Eighth ITTC</u>		<u>Ninth ITTC</u>	
	<u>No.</u>	<u>\$</u>	<u>No.</u>	<u>\$</u>
Economic Information and Market Intelligence	1	100,000	1	598,652
Reforestation and Forest Management	9	6,626,410	12 (10+2)	8,242,110
Forest Industry	1	273,884	4 (3+1)	1,262,270
<b>Total</b>	<b>11</b>	<b>7,000,294</b>	<b>17</b> <b>(14+3)</b>	<b>10,103,032</b>

With projects, pre-projects and other activities financed in 1990, ITTO has to date financed the implementation of 67 projects and 40 pre-projects including other activities costing \$29,919,406 and \$3,938,577 respectively.

1.5 The Secretariat

Dr. Per Wegge joined the Secretariat on 8 March 1990 as Forestry Ecologist. His assignment with ITTO is financed by the Government of Norway through NORAD. Dr. Steven Johnson took up his appointment as Statistician in the Secretariat on 1 July 1990. As of 31 December 1990, the Secretariat comprised of nine professional staff and eight in the general service category, three of whom were on secondment from the host Government.

The Organization continued to enjoy the hospitality and full support of the Government of Japan and City of Yokohama. With expansion and growing needs, current office accommodation at the Sangyo Boeki Center Building (SANBO) has become inadequate. ITTO's Headquarters will be relocated in the ultra modern Convention Center being built as part of Yokohama City's Minato Mirai 21 (MM21) project where more space would be made available. The building is due to be completed in August 1991.

2 ECONOMIC INFORMATION AND MARKET INTELLIGENCE

2.1 Pre-Projects

2.1.1 Pre-Projects in Progress

(1) The Permanent Committee at its Sixth and Seventh Sessions took note of a Progress Report on the Pre-Project Study: "The Conservation Status of Tropical Timber in Trade" (\$129,200) which was being undertaken by the World Conservation Monitoring Centre (WCMC) in Cambridge, U.K. The Study commenced in July 1989 and was expected to be completed for consideration by the Council at its Ninth Session in November 1990. Substantial data had been collected on the status of tropical timber species in South East Asia and Africa. There had unfortunately been unforeseen problems with the preparation of the database. The delay, however, had enabled some additional information to be incorporated into the database. The final report is to be finalized for submission to the Council at its Tenth Session.

(2) Since March 1990 work has proceeded on the Pre-Project "Study on Incentives in Producer and Consumer Countries to Promote Sustainable Development of Tropical Forests" (\$141,670). The Study is being undertaken by the Oxford Forestry Institute in co-operation with the Timber Research and Development Association (TRADA) in the U.K.

For the Study the Consultants drew up a programme of work which included producer country studies followed by a consumer country study. The producer country studies involve visiting the following countries:

South and Central America	: Brazil and Trinidad and Tobago
Africa	: Ghana and Zaire
South East Asia	: Indonesia and Papua New Guinea

The consumer country study covers the United Kingdom. Wide-ranging consultations have been held with conservation NGOs such as World Wide Fund for Nature (WWF), Friends of the Earth (FOE), the International Institute for the Environment and Development (IIED) and the World Conservation Monitoring Centre (WCMC). Timber Trade and Industry Associations have also been consulted.

The final Report will be ready for consideration during the Tenth Session of the Council. The Report will also serve as the Working Document for the proposed ITTO Round Table on "The Agenda for Trade in Tropical Timber from Sustainably Managed Forests by the Year 2000", pursuant to Decision 5(IX) of the Council.

## 2.2 Projects

At its Sixth and Seventh Sessions the Permanent Committee and the Council followed progress on the status of various Projects approved for implementation by the Council. They are PD 14/87 (M) (approved in 1987), PD 7c/87 Rev.1 (M) (approved in 1988), PD 7d/87 Rev.1 (M) (approved in 1988), PD 61/89 (M) (approved in 1989), PD 66/89 (M) (approved in 1989), PD 42/88 Rev.1 (M) (approved in 1989). The Committee approved in the year under review three Projects: PD 7a/87 Phase II (M), PD 82/90 (M) and PD 118/90 (M). One Project PD 1/87 (M) approved in 1987 is still under review. Extension of the activities under two other Projects (approved 1989) of direct interest to Economic Information and Market Intelligence were taken up substantially in the Committee on Forest Industry. They are PD 60/89 (M,F,I) "Fellowships and Small Grants Programme" on PD 73/89 (M,F,I) "Assistance for Project Identification and Formulation". Fuller accounts of them appear under the relevant sections of the report on Forest Industry.

### 2.2.1 Completed Projects

In the period under review two Projects were completed:

- (1) PD 7d/87 Rev.1 (M): Statistical Information and Market Indicators: Study on Major Import Markets for Wooden Furniture

Source of Funding: ITTO and the Government of Japan

Budget: Total - \$145,100  
ITTO Contribution - \$145,100  
ITC Contribution - In kind

Implementing Agency: International Trade Centre (UNCTAD/GATT)

Starting Date/Duration: March 1989 - One year

(2) PD 61/89 (M): Statistical Information and Market Indicators:  
Study of the Trade and Market for Tropical  
Hardwoods in Japan

Source of Funding: The Government of Japan

Budget: Total - \$210,000  
ITTO Contribution - \$210,000

Implementing Agencies: ITTO (contracted to John V. Ward  
Associates in co-operation with IRM,  
Tokyo)

Starting Date/Duration: January 1990 - One year

This Project was approved by the Committee at its Fourth Session in May 1989. The Study was commissioned from an International Trade Consultancy, John V. Ward Associates, Washington, D.C., working in co-operation with the International Research and Marketing Inc. (IRM), Tokyo.

The Project was designed to prepare a comprehensive study of the Japanese market for tropical hardwood products. Its scope involved:

- a) A study of trends and prospects in the Japanese market for tropical hardwood products;
- b) A survey and, where necessary, a translation into English of relevant information materials which up to now have not been accessible to non-Japanese readers; and
- c) Providing a written guide for foreign timber traders on Japan's agriculture standards with special reference to tropical hardwood products.

The Study was completed and submitted to the Seventh Session of the Committee for consideration. Comments and views have been invited for possible revision. The Study is to be published as an ITTO Technical Series report in the first half of 1991.

2.2.2 Projects in progress

(1) PD 14/87 (M): Market Analysis of the Wood Flow as a Basis for  
an Early Warning System for the Tropical Timber  
Market

Source of Funding: ITTO and The Netherlands Government

Budget: Total - \$187,000  
The Netherlands Government - \$37,500  
ITTO Contribution - \$149,500

Implementing Agency: Stichting Bos en Hout (SBH)  
(Foundation for Forest and Forest  
Products), Wageningen, The Netherlands

Starting Date/Duration: 1 May 1988 - 2 1/2 years (1988-1991)

Work on this Project is near completion. The task of collecting market information has continued including the inventory of the availability of statistics in all the E.C. countries, paying special attention to market information on products or materials competing with tropical timber and materials made of tropical timber, particularly relating to end-uses.

The first version of the Market Information System (Early Warning System) for the tropical timber market in the E.C. has been developed. Various relevant and interested organizations in most E.C. countries have been consulted to find ways of implementing the first version of the System. Their advice and comments have been taken into account in modifying the first version of the System. Its main features are:

- a) In each E.C. country one organization will be designated to collect the required information at country level once a year;
- b) Data will be collected on trade statistics, main end-use categories and general economic factors (e.g. building permits, GNP, etc.);
- c) The designated organization will be asked to send out questionnaires to a number of traders and timber processing industries to collect additional information about their use of tropical and non-tropical timber (if possible, divided by species); and
- d) The use of tropical timber in windows, doors and stairs will be quantified, as will information about the competitive position of tropical timber in these end-use sectors.

The possibilities of developing models to forecast developments in the tropical timber market have been explored. The conclusion during the study was that it was difficult to express such a complicated market in a complete quantitative model for two main reasons: (i) the large number of interacting variables; and (ii) the lack of accurate and



comprehensive data as inputs into such a model. In the circumstances it was concluded that it should be possible, however, to develop a useful and valuable system capable of predicting general trends in the tropical timber markets. As a project idea, therefore, it was proposed to submit a follow-up (Phase II) to this Project. The objective of Phase II would be to test the capability of the information system to provide the type of market information required over a realistic period for the consuming and the producing countries alike. At its Seventh Session, the Committee considered as a project idea a proposal to test the blueprint for setting up an Information System in a practical situation. Many components for the provision of information are based on commitments by organizations in the E.C. Member States. The extent to which these commitments would be met in practice could only be investigated by means of a test run. Based on the results of the test run, it could be determined whether the system met expectations and whether it required adjusting or refining. Special attention would also be given to possibilities of optimizing information collection. A follow-up would also enable particular attention to be paid to changes that might become evident in 1992, when the European markets become unified.

If the follow-up Project is approved, actual market information will be collected for 1991 or 1992. The Project would be completed two years after the starting date. Various regional contacts would be utilized during the implementation of the test run within the E.C. Member States (ranging from trading organizations to official statistics offices).

A framework will be used within which information would be requested from the E.C. Member States. In several cases this information was already available and could be entered into the system immediately. In other cases, supplementary investigation would be required, including market surveys. The proposals for these activities had already been prepared within the framework of Project PD 14/87 (M), and had been discussed with the regional offices in the various countries. Research can be conducted into the use of tropical hardwood species for particular end-uses, such as window frames, door frames and staircases, via a market survey on a "multi-client" basis. Research on a multi-client basis would mean that costs could be limited very considerably. Information on major

economic indicators such as GNP, exchange rates and construction permits would also be collected and analyzed in order to give a general view of the future development of the tropical hardwood market in the E.C. countries.

The main results of this follow-up Project would be:

- a) An operational market information system that, based on the blueprint developed under Project PD 14/87 (M), is tested in reality and, if necessary, improved to meet user requirements;
- b) Actual and detailed information concerning the trade and the end-uses of tropical timber in the E.C. Depending on the Project's starting date, the test data will cover 1991 or 1992. Information about the competitive position of tropical timber will be included. The information will be presented for each E.C. country; and
- c) An overview of the consequences of establishing the common European market after 1992 regarding the availability of market information.

(2) PD 7c/87 Rev.1 (M): Statistical Information and Market Indicators: Market News Service for Tropical Timber and Timber Products

Source of Funding: ITTO and the Governments of Sweden and Switzerland

Budget: Total - \$772,078 plus contribution in kind by ITC  
ITTO Contribution - \$772,078

Implementing Agency: International Trade Centre (UNCTAD/GATT)

Starting Date/Duration: 1 January 1990 - Two years

The Market News Services (MNS) for tropical timber and timber products started producing reports on 26 June 1990 and has transmitted every second week since then.

Around 50 are transmitted by fax/telex and a further 100 or so by mail to companies, organizations and governments in virtually all timber producing and consuming countries, including all member countries of ITTO. Requests are received regularly for inclusion on the mailing list. Several producing countries and others have expressed satisfaction with the service and many have indicated willingness to supply

information, and are doing so. The network of contributors is still being built up. This will take many months to complete but so far MNS is receiving inputs from most ITTO producing countries, including all the largest, and from some consuming countries. The latter will take longer to establish reliably. There are now three regular correspondents who are (or will be shortly) paid under consultancy agreements. These cover Far East plywood (Singapore), South Sea logs, and U.K./Europe.

The network of correspondents and contacts in producer and consumer countries was extended to parts of Africa, The Netherlands, Germany, Belgium and France.

The coverage of the MNS has not yet been extended to France, Italy and Spain. Reports have so far only been sent to the national French and Italian Trade Associations. No contact has yet been established with Spain, although one of the MNS correspondents is also one of the largest wholesalers of tropical timber to Spain.

There is sufficient coverage geographically and in content to provide reliable, ongoing reportage. This is currently oriented more toward producer country data than that of consumer countries. However, the number of sources of information is still too few and the network would benefit from further extension in both content and geographical aspects. By the end of 1990, MNS was approaching 50 percent of eventual target coverage.

Contacts will be established in Brazil with producers and trade associations to widen the network of correspondents.

The reports of the consultants on West Africa and Europe will be followed up; subscribers and offers of data and assistance from both producers and consumers in this region will be incorporated into the network.

Reactions to the MNS have been generally positive, although in consuming countries comments that MNS should not provide real prices have been heard. This reaction has occurred in the past in other ITC commodity services and it is not therefore unexpected.

It is believed that MNS data has generally been good, and useful to recipients. In some cases information has appeared in MNS well before other news sources, and in verifiable data and information MNS is seen to be accurate and above all timely. For the first time, recipients of the MNS reports can see, easily, current, worldwide prices reported in one measure unit (cubic meters) and one currency (U.S. dollars) and therefore make assessments on relative price levels.

So far, the argument that revealing real prices will disrupt the market has not been substantiated, and is not likely to be. There is no claim that the prices reported in the MNS are the only prices in the market. It is fully recognized that there are many variations due to quality of particular production, freight rates (which will be reported in due course) individual preferences and so on. The MNS provides real prices to form a bench mark from which a subscriber can judge a price relationship for his particular areas of the market place.

The greater transparency in market prices now starting to be provided by MNS will assist in smoothing out market imbalances, and will help to ensure a fair and equitable market for both producers and consumers.

### 2.2.3 Projects under Preparation for Implementation

- (1) PD 42/88 Rev.1 (M): The Structure of China's Tropical Timber Market, the Current Situation of International Cooperation of PRC, and the Prospects for the Year 2000

Source of Funding: The Government of France

Budget: Total - \$129,500  
ISTIF (China) Contribution - \$30,000  
ITTO Contribution - \$99,500

Implementing Agencies: The Institute of Scientific and Technical Information (ISTIF) of the Chinese Academy of Forestry

Starting Date/Duration: Starting date not yet determined  
(Two years duration)

The Project is designed to undertake over a two-year period two market and industry studies surveying:

- a) China's imports of tropical timber and its wood processing industry - the present situation and long-term trends to the year 2000; and
- b) The utilization of China's tropical forest resources - the present situation and long-term trends to the year 2000.

As part of the Study, it is also intended to establish a database with information and statistical data on world tropical forest resources including China's forest resources and timber import market indicating long-term trend forecasts up to the year 2000.

The Project was approved by the Committee at its Fourth Session in May 1989. Consultations had continued on its funding. At the Seventh Session of the Committee, the Government of France announced its intention to finance the Project and to release the necessary funds as of January 1991. Meanwhile the ISTIF has begun preparations for implementing the Project.

- (2) PD 66/89 (M): Study of the Trade and Markets for Tropical Hardwoods and Derived Manufactures in North America

Source of Funding: Not yet determined

Budget: Total - \$181,460  
Contribution by ECE - In kind  
ITTO Contribution - \$181,460

Implementing Agency: Originally U.N. Economic Commission for Europe (ECE/FAO Agriculture and Timber Division). Now possibly the U.S. Department of Agriculture Forest Service and Forestry Canada

Starting Date/Duration: Not yet determined - original target was November 1990 (duration 18 months)

This Project was approved by the Committee at its Fifth Session in November 1989. The Project involves the preparation of a Study analyzing the structure and trends of the trade in the U.S.A. and Canada of tropical hardwoods and of manufacturers derived from tropical hardwoods

/...

such as builder's woodwork, joinery, doors, windows and furniture. It will provide statistics on tropical hardwoods and on their derived manufactures and develop a methodology for incorporating the statistics on the latter in analyses of the markets. The analyses will clarify issues on the increasing importance and value of the derived manufactures in the North American markets, and issues involved in the competition between tropical and locally produced temperate-zone species in major market areas such as U.S.A. and Canada. At the Seventh Session of the Committee, it was announced that Forestry Canada and the U.S. Department of Agriculture Forest Service (USDA) would explore possibilities of jointly undertaking the study for the ITTO. The cost would also be under-written by the two agencies.

- (3) PD 82/90 (M): Workshop on Issues related to Incentives to Promote Sustainable Development of Tropical Forests

Source of Funding: The Government of Japan

Budget: Total - \$100,000  
ITTO Contribution - \$100,000

Implementing Agency: ITTO

Starting Date/Duration: December 1990

This Project was approved at the Sixth Session of the Committee. It was envisaged that the workshop would be organized after the completion of the Pre-Project "Study on Incentives in Producer and Consumer Countries to Promote Sustainable Development of Tropical Forests" being undertaken by the Oxford Forestry Institute.

At its Ninth Session, the Council decided to organize a Round Table on "The Agenda for Trade in Tropical Timber from Sustainably Managed Forests by the Year 2000". The working document for that Round Table was to be the Pre-Project Report mentioned above. It has been decided, therefore, to postpone this workshop so that it can take advantage of the findings of the Round Table.

Preparations for the Round Table began immediately after the Ninth Session of the Council. It is scheduled to be held in conjunction with the Tenth Council Session in Quito, Ecuador.

- (4) PD 7a/87 (M) Phase II Rev.1: Statistical Information and Market Indicators: Development of the Monthly Bulletin "Tropical Forest Products in World Timber Trade" - Phase II

Source of Funding: Not yet determined

Budget: Total - \$269,730 + contribution in kind by  
FAO  
ITTO Contribution - \$269,730

Implementing Agencies: Food and Agriculture Organization of the  
United Nations (FAO)

Starting Date/Duration: Date not yet determined (Two years)

Phase I of this Project identified areas of improvement and methods for updating the Bulletin as it currently exists. This second Phase is designed to improve the content, lay-out and extent of coverage of the current Monthly Bulletin.

The programme for further improvements comprises:

- a) The development of efficient systems analysis and programming and upgrading the computer equipment with adequate local storage and processing capacity;
- b) Measures to speed up data submission by participating countries and to assist countries joining the system to set up efficient data submission. This is to be done through establishing contacts with appropriate national institutions to assess their needs and to give assistance to them to improve their capabilities; and
- c) A better presentation of the analytical supplement to include an explanatory and informative text as well as summary tables and graphics.

Funds for this Project are still not available. At the Seventh Session of the Committee, the Representative of the FAO informed the Committee that FAO funds for continuing the publication of the current Bulletin would be diverted to other programmes of higher priority in the next biennial budget of the FAO (1992-3) unless ITTO was able to indicate its support for the continuation of this publication through providing funds for this Project. It would, therefore, be necessary in the near future to secure funds to continue the publication if interested member governments saw the need for it.

/...

2.2.4 Projects under Review

One Project Proposal is under review; namely PD 1/87 (M).

- (1) PD 1/87 (M): Structure of Tropical Timber Markets in Belgium-Luxembourg, Federal Republic of Germany, Netherlands and United Kingdom and Methods to Study the Main End-Use Segments

Source of Funding: Not yet determined

Budget: Total - \$211,418 + contribution in kind by  
FAO  
ITTO Contribution - \$211,418

Implementing Agency: Food and Agriculture Organization of the  
United Nations (FAO)

Starting Date/Duration: Date not yet determined - Nine months

This Project was one of the very first projects approved by the Committee at its First Session in November 1987. It has not been possible so far to obtain financing for its implementation.

By the decision of the Committee at its Fifth Session, this Project is to be reviewed in the light of changes to its output which may be necessary after the Committee has considered two reports it has requested, namely:

- 1) A report by the SBH giving details of its work on end-uses [from PD 14/87 (M)] and how it can be co-ordinated with PD 1/87 (M).
- 2) A report on a methodical survey commissioned by the FAO from a Consultant, Mr. R.J. Cooper of the University College of North Wales. The Consultant's Report will:
  - (a) Identify the main high value tropical timber consuming end uses;
  - (b) Determine the main species used, consumption trends and reasons for tropical timber use; and
  - (c) Suggest ways in which these uses could be examined in greater depth and could be monitored regularly by the FAO for up-to-date and accurate information.



These reports are yet to be considered by the Committee before a review of the status of this Project is determined.

2.3 Non-Project Activities

2.3.1 Criteria and Priority Areas for Programme Development and Project Work

Following the recommendation of the Committee and by decision of the Council a 13-member Panel of Experts in March 1990 met at The Hague (The Netherlands) under the Chairmanship of Mr. David W.K. Boulter (Canada) to formulate the Action Plan and Work programme in the field of Economic Information and Market Intelligence. Arrangements for the meeting were made with the kind assistance of the Government of The Netherlands. The Panel met concurrently and at the same venue with a similar Panel on Forest Industry.

The draft Action Plan and Work Programme were approved after further revisions by the Committee at its Sixth Session. By decision of the Council the draft was integrated with those from the two other areas of ITTO's activities in order to formulate a comprehensive ITTO Action Plan which was adopted at the Ninth Session of the Council.

A Work Programme for 1991 in the area of Economic Information and Market Intelligence was also drawn up and approved in November 1990 by the Committee at its Seventh Session and by the Council at its Ninth Session.

2.3.2 Annual Market Review and Outlook

The 1990 Market Discussions took place in Bali, Indonesia, during the Sixth Sessions of the Permanent Committees and the Eighth Session of the Council. The Chairman was Mr. David W.K. Boulter (Canada); the Rapporteur was Mr. Arthur V. Morrell (U.K.). The discussion focussed the general theme of "Trends in Trade of Tropical Timber Products in the Asia/Pacific Region". The key speaker on this theme was Mr. Denis Cullity, Chairman of Westralian Forest Industries, Ltd., Perth, Western Australia. Discussion Leaders made presentations on the sub-themes "The

Development of Value-Added Processing of Tropical Timber Products from the Japanese, Korean, Chinese, European, and North American Perspectives and from the View of the In-Transit Processors of Singapore and Far East".

The Discussion Leaders were:

- Mr. Y. Mangyoku - Chairman, South Sea Logs Section of the Japan Lumber Importers' Association (Japanese Perspective)
- Dr. Philip L.K. Ling - Honorary Secretary, Sarawak Timber Association (Japanese Perspective)
- Mr. P.K. Shim - Managing Director of Korean Plywood Industry Association (Korean Perspective)
- Mr. Chen Xuhe - Deputy Director and Senior Engineer, Research Institute of Wood Industry, Chinese Academy of Forestry (Chinese Perspective)
- Morten Bjorner - Senior Vice-President of UCBT (European Perspective)
- Mr. John V. Ward - International Trade Consultant, Washington, D.C. (North American Perspective)
- Mr. Richard C. Newman - Member of the Board of IHPA, President of Plywood Tropics Ltd., Portland, Oregon, U.S.A. (North American Perspective)
- Mr. Ho Mun - Chairman and Managing Director, Kwong Man Sawmill Co. Pte Ltd., Singapore (In-Transit Processors)
- Mr. Jim W. Maner - President, Lily Coatings Far East Ltd. (The Far East) (In-Transit Processors)

The Host Country Presentation was made by Mr. Bob Mohamed Hasan, President of the Indonesia Forestry Community on "The Forest Resources Situation, The Timber Trade and Industry of Indonesia".

The Special Topic: "The timber Situation and Prospects for India" was covered by Mr. K.M. Chadha, Joint Secretary, Ministry of Environment and Forests of India. The General Market Statement issued at the end of the discussion was released to the Press by the Chairman and is contained in Annex III.

The Committee at its Seventh Session decided on the theme and subjects for discussion at the 1991 Market Review to be held in Quito (Ecuador) during the Tenth Session of the Council:

a) General Theme

Trends in the Trade of Tropical timber Products in the Latin American/Caribbean Region:

- i) The Brazilian Perspective
- ii) North American Perspective
- iii) European Perspective

b) Special Topics

- i) Trends in the Trade of Tropical Timber Products in the Latin American/Caribbean Region
- ii) Host Country Presentation: The Forest Resources Situation, the Developments in the Timber Trade and Industry of Ecuador

2.4 Statistical Operations

2.4.1 Data Processing Systems Configuration

The computer equipment now comprises five IBM PS/2 Model 50 microcomputers connected by a local area network to an IBM PS/2 Model 80 server. In addition, five stand-alone workstations (4 IBM PS/2 Model 30's and 1 IBM PC/AT) and two laptop computers (Toshiba Dynabook J-3100SS and Toshiba J-3100SGT) are in use. A laser printer (Kyocera F1000+) was installed in January 1990 and the quality of ITTO's documents and publications has improved.

Two more computers (Toshiba Dynabook J3100SX021 and Fuji Xerox Dynabook J3100SS02E) have been ordered which will provide ITTO staff members with necessary data processing facilities during duty travel and official meetings.

DrawPerfect v.1.1 business graphics program has been installed in December 1990 and new versions of standard microcomputer software products (Wordperfect v.5.1 and SAS v.6.04) have been updated during 1990.

A 2 megabyte memory board was installed on one IBM PS/2 Model 50 to enable the ITTO Statistician to run memory intensive software.

#### 2.4.2 Communications

A new version of the ICC (International Computer Center) terminal emulator and communication programme was installed in March 1990.

Direct on-line connection to FAO VAX computers in Rome was established in October 1990. This enables ITTO staff members to use the in-house computer mailing system in FAO.

WPC (World Press Centre) Clearing House Service has continued to be used as an information distribution Channel concerning ITTO meetings.

#### 2.4.3 Analytical/Reporting Software

A basic version of ITTO's Project Management Software was programmed and tested at the end of 1990. This software will be modified and improved to help ITTO staff members in ad-hoc and ongoing inquiries concerning project work and status.

Several database software systems (the results of ITTO projects) were received and tested during 1990.

#### 2.4.4 Processing of Statistical Data and Forecasts

In August 1990, the Annual Forecasting Enquiry Questionnaire was sent to all member countries. By the end of 1990 40% of ITTO's members had responded.

A revised version of the Enquiry Questionnaire was presented to the Permanent Committee on Economic Information and Market Intelligence at its Eighth Session in November 1990. The revision, which seeks to clarify

some aspects of the questionnaire and to solicit more details on trade flows, was approved for circulation to members commencing in 1991. Revision of the form and content of the Annual Enquiry will be ongoing, reflecting changes in international trade classification (the Harmonized System) and the needs and capabilities of members.

### 3 REFORESTATION AND FOREST MANAGEMENT

#### 3.1 Overview

The Committee decided, during 1990, to implement three Pre-projects and five new Committee Activities. It considered thirty Project Proposals and recommended to the Council that twenty-eight of these be implemented. Nine Project Ideas were presented to the Committee for consideration and four of these were recommended to be developed into Project Proposals.

The Council recognized the Committee's decisions with regard to Pre-projects and Committee Activities and allocated funds for their implementation. The Council also approved twenty-eight Project Proposals as recommended by the Committee and allocated funds for immediate implementation of seventeen. It also allocated funds for implementation of three project approved in earlier Sessions. In total \$15,634,578 were allocated as follows:

For Projects approved before 1990	\$ 1,095,000
For Projects approved during 1990	\$13,563,120
For Pre-projects	\$ 557,458
For Committee Activities	<u>\$ 419,000</u>
Total	\$15,634,578

#### 3.2 Pre-Projects

##### 3.2.1 Completed Pre-Projects

Two Pre-projects were completed in 1990.

(1) The Permanent Committee decided, at its Second Session in June 1988, to implement part of stage 1 of the Pre-project "Improvement of Harvesting Systems for Sustainable Management of Tropical Forests", which had been proposed by the Secretariat.

The contract for executing the Pre-project was awarded to Forskningsstiftelsen Skogsarbeten (the Forest Operations Institute), Stockholm, Sweden.

The execution of Stage 1 of the Pre-project was completed in March 1990 and the report on this Stage, contained in document PCF(VI)/10, "Logging Technology for Tropical Forests - for or against?", was submitted to the Sixth Session of the Committee in May 1990.

(2) The Committee decided at its Sixth Session to implement a Pre-project with the title "The National Biological Conference of Thailand" proposed by the Government of Thailand.

The Conference was held at the Royal Orchid Sheraton Hotel in Bangkok on 22 - 24 October, 1990. The Ministry of Science, Technology and Energy of the Royal Thai Government was executing agency and the Faculty of Science, Ramkhamhaeng University, Bangkok handled the practical arrangements.

A report on the Conference will be submitted to the Committee at its Eighth Session in May/June 1991.

### 3.2.2 Pre-Projects in Progress

Eight approved Pre-Projects were, at the end of 1990, under execution or in the process of being prepared for execution. Summaries of their status of development at the end of 1990 are given below.

- (1) Management of Natural Tropical Moist Forests to Obtain a Sustainable Production of Wood and Other Forest Products and Maintain the Ecological Balance in Ecuador

Budget requirement: \$75,000 plus contribution in kind by the Government of Ecuador.

The Committee decided, at its Second Session in June 1988, to implement this Pre-project to assist the Government of Ecuador to further develop a project proposal with the same title and ITTO reference number PD 30/88 (F) submitted for consideration by the Committee. The Council

allocated, at its Fourth Session, \$75,000 for financing of the Pre-project.

Terms of Reference and an Agreement between the Government of Ecuador and ITTO for the execution of the Pre-project were finalized and signed in May 1990.

The Pre-project is expected to be completed in March 1991.

(2) Coordinated Natural Forest Management and Sustainable Rural Development in Areas Adjoining Sapo National Park, Liberia

Budget requirement: \$25,000 plus contribution in kind by the Government of Liberia.

The Committee decided, at its Third Session in November 1988, to implement this Pre-project Study to assist the Government of Liberia to improve and further develop a Project Proposal with the same title and ITTO number PD 45/88 (F) submitted for evaluation by the Committee. The Council allocated, at its Fifth Session, \$25,000 for financing of the Pre-project.

An Agreement, between the Government of Liberia and ITTO regulating the execution of the Pre-project, came into force on 26 October 1989.

The Forest Development Authority (FDA) of Liberia requested in May 1989 ITTO to assist in finding suitable consultants to assist the FDA in carrying out the Pre-project. A short list of suitable consultants was sent to the Managing Director of FDA on 7 June 1989.

The execution of the Pre-project is currently suspended due to the political unrest in the country.

(3) Manmade Forests of Indigenous Species - A Systematic Preparation to Industrial Tree Plantations, Ghana

Budget requirement: \$35,000



The Committee decided at its Fourth Session to implement a pre-project to assist the Government of Ghana to further develop Project Proposal PD 46/88 Rev. 1 (F) with title as above. The original Project Proposal PD 46/88 (F) had been revised on the advice of the Secretariat. The Council allocated, at its Sixth Session, \$35,000 for the execution of the Pre-project.

An Agreement, with attached Terms of Reference, for the execution of the Pre-project was concluded in February 1990.

The Pre-project is expected to be completed in early 1991.

(4) Study of Conservation Concerns Relating to the Diversification of Species Extracted for Timber

Budget requirement: \$224,000.

This Pre-project had been developed by the Secretariat in cooperation with WWF International and was submitted for consideration by the Committee which decided, at its Third Session in November 1988, to implement the Study.

The Council, at its Fifth Session in November 1988, authorized the Executive Director to commence implementation of the Pre-project when earmarked funds were made available for this purpose.

The Government of Denmark decided in March 1989 to earmark \$224,000 of its voluntary contribution to the Special Account for financing this Study.

The International Institute for Environment and Development (IIED), London, has been chosen to execute the Pre-project, and ITTO and IIED signed, on 31 May 1989 and 6 June 1989 respectively, a Memorandum of Agreement which regulates the implementation of the project.

The execution of the Study is coordinated with that of the Pre-project Study entitled "The Conservation Status of Tropical Timbers in Trade", the implementation of which was decided by the Permanent Committee on Economic Information and Market Intelligence at its Third Session in

November 1988 and which is under execution by the World Conservation Monitoring Centre (WCMC), Cambridge, UK. The two studies over-lap to some extent and hence the need for close co-ordination.

Collection of field data has been completed and a seminar in which the main findings were discussed was held in London on September 4 - 5, 1990.

The report on the study is expected to be ready in March 1991.

- (5) Silvicultural Treatment through Selective Felling as Part of A Pilot Forest Development Project in the South Bakundu Forest Reserve, Cameroon

Budget requirement: \$35,000

The Committee decided, at its Fourth Session in May 1989, to implement this Pre-project to assist the Government of Cameroon to further develop a Project Proposal with the same title and ITTO number PD 52/89 (F) submitted for consideration at the Committee and the Council. The Council allocated, at its Sixth Session, \$35 000 for financing this Pre-project.

An Agreement between ITTO and the Government of Cameroon for the implementation of the Pre-project was finalized in January 1990.

The Pre-project is expected to be completed in April 1991.

- (6) Sustained Development in the Amazon Region

Budget requirement: \$70,000

The Fifth Session of the Committee decided to implement this Pre-project Study, which had been proposed by the Government of Brazil.

The aim of the Study is to design projects for agrosilvicultural, tropical fruit and industrial timber production experiments.

An Agreement and Terms of Reference for the execution of the Pre-project was concluded in October 1990.

The implementation of the Pre-project started in September 1990 with Brazilian Foundation for Nature (FUNATURA) as Executing Agency.

(7) Realistic Strategies for the Conservation of Biological Diversity in Tropical Moist Forest

Budget Requirement: \$190 000

The Committee decided, at its Sixth Session in May 1990, to implement this Pre-project, which had been proposed by the Government of Japan.

The Pre-project is implemented by IUCN and ITTO in cooperation under an Agreement concluded in June 1990.

Country reviews were completed and the preliminary findings were presented at a workshop held at the IUCN General Assembly in Perth, Australia in December 1990.

The final report is scheduled to be ready in June 1991.

(8) Sustainable Multiple Use

Budget requirement: \$276,958

The Committee decided at its Seventh Session in November 1990 to implement this Pre-project proposed by the Government of Malaysia.

The objective of the Pre-project is to identify pilot and demonstration projects to be used for promoting multiple use management of the forests of Sarawak.

A draft Agreement for the execution of the Pre-project was sent to the Government of Malaysia on December 17, 1990.

### 3.3 Projects

#### 3.3.1 Project Proposals and Project Ideas

A total of thirty project proposals, in the field of reforestation and forest management, were reviewed by the Permanent Committee during 1990.

Twenty eight project proposals considered by the Committee, and recommended for implementation, were approved by the Council. For sixteen of these projects the Council provided immediate financing. The Council also provided full financing for four projects approved, but not funded, in previous Sessions. For one project approved in earlier Sessions [PD 2/87 (F)], the Council provided partial financing.

One project proposal was recommended for revision through pre-project activities.

The Committee considered nine project ideas and recommended that four of these should be developed into project proposals.

#### 3.3.2 Completed Projects

Three Projects and the First Phase of a fourth Project were completed during 1990.

- (1) PD 2/87 (F): Rehabilitation of Logged-over Forests in the Asia/Pacific Region, (sub-project 1)

Source of Funding: Government of Japan - \$670,000  
To be determined - \$557,100

Budget: Total - \$1,227,100 + contribution in kind by participating countries  
ITTO Contribution - \$1,227,100

Implementing Agency: Japan Overseas Forest Consultant Association (JOFCA) [First Phase]

Starting Date/Duration: March 1989/Two years

The Project was approved by the Council at its Third Session in November 1987, but financing was not made available, at that time, for implementation.

The Government of Japan provided partial financing for the Project in its budget for the year 1988/89, amounting to \$240,000, and in its budget for 1989/90, \$190,000 and for 1991/92 \$240,000, and indicated that further financing would be given favourable consideration in subsequent budgets for completion of project implementation.

At its Fourth Session in Rio de Janeiro in June 1988, the Council authorized the Executive Director to start work on Project 2/87 (F) up to a total commitment of \$240,000, provided that a fully funded, viable sub-project could be identified, and implemented without increasing the total cost of the Project. Such a sub-project was identified and approved by the Third Session of the Committee in November 1988.

An Agreement between ITTO and JOFCA for the execution of the Sub-project was signed on 1st December 1988.

The Sub-project became operational on March 10, 1989 when the budget resources were made available by the Forest Agency of Japan.

The aim of the sub-project is to establish:

- (a) the extent of forest in need of rehabilitation;
- (b) what efforts are being made to rehabilitate disturbed forests and the results of these efforts;
- (c) what research into forest rehabilitation has been carried out or is in progress, and what variation with regard to forest types, intensity of logging and range of measures this research covers;
- (d) need for further research.

A consolidated report for the Region was presented to the Sixth Session of the Committee and the Eighth Session of the Council together with country reports for Papua New Guinea, Solomon Islands, Fiji, India, Indonesia, Malaysia, the Philippines and Thailand.

At its Ninth Session the Council decided to implement a second sub-project and allocated \$430,000 for this purpose. (See below under Item 3.3.3 "Projects under Implementation".)

(2) PD 17/87 (F): Investigation of the Steps Needed to Rehabilitate the Areas of East Kalimantan Seriously Affected by Fire

Source of Funding: Government of Switzerland - \$367,600  
Government of Indonesia - \$ 94,400

Budget: Total - \$462,000 + contribution in kind by the Government of Indonesia  
ITTO Contribution - \$367,600

Implementing Agency: Agency for Research and Development of the Ministry of Forestry, Government of Indonesia

Starting Date/Duration: (1 June 1988) 30 January 1989/One year

The Project was approved for immediate implementation by the Council at its Third Session in November 1987.

The Agreement which regulates the execution of the Project was signed on behalf of the Government of Indonesia on 26 May 1988 and by ITTO on 1 June 1988. The Agreement designates the Agency for Research and Development of the Ministry of Forestry, Government of Indonesia, Executing Agency.

The Government of Indonesia, with the approval of ITTO, contracted the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) to provide technical assistance for Project implementation.

The start of the Project was delayed awaiting finalization of contract with the consultants and the formal delegation of authority to the Agency for Research and Development to execute the Project. The official starting date was 30 January 1989. However, the work on the execution of the project had started on 29 October 1988.

A joint ITTO/Government of Indonesia review of the progress in Project execution was held on 4-8 September 1989.

The field work of the Project was completed in November 1989 and the final report was submitted to the Secretariat in February 1990 and to the Committee at its Sixth Session in May 1990.

The project results have the potential of providing a good basis for the next phase of the Project, which will, in first hand, be concerned with establishing a pilot project for land and forest rehabilitation.

A project proposal for the second phase was submitted to the Committee at its Seventh Session and the Council provided financing for immediate implementation at its Ninth Session in November 1990. (See below under 3.2.3 Projects under Implementation.)

(3) PD 72/89 (F): Seminar on Sustainable Development of Tropical Forests

Sources of Funding: Government of Japan - \$50,000

Budget: Total - \$50,000  
ITTO contribution - \$50,000

Implementing Agency: ITTO Secretariat

Starting date/Duration: Eighth Council Session/One day

The Project was approved at the Seventh Session of the Council in November 1989 and funds were made available for immediate implementation.

The Seminar was held on May 19, 1990 in conjunction with the Eighth Session of the Council and the Sixth Sessions of the Committees and focused the attention on defining the role of various actors - trade, industry, governments, the general public, etc. - in providing incentives in support of sustainable tropical forest management. Five papers were presented. The proceedings were led by Dr. Mauro Silva Reis of Brazil.

A report, containing the papers presented at the Seminar and a brief summary of the proceedings, is contained in document PCF(VII)/4 and will be published in ITTO's Technical Series.

- (4) PD 78/90 (F): Panel Discussion/Seminar on Promotion of A Positive Image of Sustainable Utilization of Tropical Forests

Source of Funding: Government of Japan - \$100,000

Budget: Total - \$100,000  
ITTO Contribution - \$100,000

Implementing Agency: ITTO Secretariat

Starting Date/Duration: May 1990/Two months (intermittent)

The Council approved the Project at its Eighth Session in May 1990 and allocated funds for its immediate implementation.

The Seminar was held in Kamakura in conjunction with the Ninth Session of the Council and the Seventh Sessions of the Committees, on 17 November, 1990. The Seminar focused the attention on the role and potential of the non-forest products and services which can be produced by sustainably managed tropical forests.

Four papers were presented. The proceedings were led by Dr. Theodore Panayotou of Harvard Institute for International Development, USA.

A report containing the papers presented at the Seminar and a brief summary of the proceedings will be submitted to the Eighth Session of the Committee.

### 3.3.3 Projects under Implementation

Eleven projects in the field of Reforestation and Forest Management were under execution at the end of 1990.



(1) PD 2/87 (F): Rehabilitation of Logged-over Forests in Asia/Pacific Region

Source of Funding: Government of Japan - \$440,000  
To be determined - \$787,100

Budget: Total - \$1,227,100 + contribution in kind by participating countries  
ITTO Contribution - \$1,227,100

Implementing Agency: Japan Overseas Forest Consultants Association (JOFCA) [First Phase]

Starting Date/Duration: March 1989/Two years

The Project was approved by the Council at its Third Session in November 1987, but financing was not made available, at that time, for implementation.

The Government of Japan provided partial financing for the Project in its budget for the year 1988/89, amounting to \$240,000, and in its budget for 1989/90, \$200,000, and indicated that further financing would be given favourable consideration in subsequent budgets for completion of project implementation.

At its Fourth Session in Rio de Janeiro in June 1988, the Council authorized the Executive Director to start work on Project 2/87 (F) up to a total commitment of \$240,000, provided that a fully funded, viable sub-project could be identified, and implemented without increasing the total cost of the Project. Such a sub-project was identified and was subsequently approved by the Third Session of the Committee. The Sub-project was completed in March 1990. (See under 3.2.2 Completed Projects).

The Forest Agency of Japan pledged, at the Seventh Session of the Committee, a further contribution of \$230,000 to the Project.

At its Ninth Session the Council decided to implement a second sub-project and allocated \$430,000 for this purpose. A new Agreement for the continued implementation of the Project is under negotiation with JOFCA.

(2) PD 10/87 (F): Forest Management of Natural Forests in Malaysia

Source of Funding: Government of Switzerland - \$272,350  
Government of Malaysia - \$322,795

Budget: Total - \$595,145  
ITTO Contribution - \$272,350

Implementing Agency: Forestry Department Headquarters,  
Peninsular Malaysia

Starting Date/Duration: 8 August 1988/Ten Years

The Project was approved by the Council at its Third Session in November 1987 and financing was allocated to allow immediate implementation.

The Project was slightly amended by the Council at its Fourth Session in Rio de Janeiro in June 1988 to extend the period of ITTO monitoring and review, from the originally approved three years of the establishment phase to the full project period of ten years. This also required allocation of additional budget resources of \$15,000 to bring the total ITTO budget contribution to \$272,350. The financial support to Project work remains limited to the first three years.

An Agreement regulating the implementation of the project was signed by ITTO and the Government of Malaysia on 8 August 1988. The Project became operational upon signing of the Agreement. However, the Forestry Department had initiated work on establishing the required sample plots already in May 1988.

Four research areas have been selected in the following geographic locations:

Virgin forests: 1. Lesong Forest Reserve, State of Pahang;  
2. Sungai Lalang Forest Reserve, State of Selangor;

Logged-over Forests: 3. Cherul Forest Reserve, State of Terengganu;  
4. Kledang Saiong Forest Reserve, State of Perak.

Formal agreements for the retention of the study areas for a minimum period of ten years have been established with the States in which the study areas are located.

In Pahang and Selangor (areas 1 and 2 above), the following activities have been completed:

- Pre-felling inventory and analysis of inventory data,
- Sub-division into replication blocks and laying out of sample plots,
- Marking of trees to be felled,
- Felling, and
- Application of silvicultural treatment.

In Terengganu and Perak (areas 3 and 4), the following work has been carried out:

- Forest inventory and the analysis of inventory data,
- Sub-division into replication blocks and laying out of sample plots, and
- Silvicultural treatment.

Collection and analysis of sample plot data is in progress and will be a continuous activity of the Project.

The first joint review of the progress of project execution was held in first week of April 1989 and a second in the first week of April 1990. Project execution is on schedule.

- (3) PD 24/88 (F): Integration of Forest-Based Development in the Western Amazon - Phase I - Forest Management to Promote Policies for Sustainable Production

Source of Funding:	Government of Brazil	- \$1,977,000
	Government of Japan	- \$ 763,000
	Government of Switzerland	- \$ 220,000
	Government of the Netherlands	- \$ 85,000
	WWF	- \$ 10,000

Budget: Total - \$3,075,000  
ITTO Contribution - \$1,078,000

Implementing Agency: FUNTAC (Technology Foundation of the  
State of Acre)

Starting Date/Duration: May 1989/Three years

The Project was approved by the ITTC at its Fourth Session in Rio de Janeiro in June 1988. The Council also authorized financing and immediate implementation of the Project. The implementation was however subject to certain conditions proposed by the Permanent Committee on Reforestation and Forest Management being met. These conditions required among other things that a mechanism for consultation with the people living in the area and with representatives of other economic sectors concerned with development of the Western Amazon be established. Provision was also made for the continuation, beyond the project period, of long term research started under the Project.

These conditions were met, to the satisfaction of the Secretariat, in January 1989 and the Agreement regulating the execution of the Project, the text of which had been agreed upon earlier, was sent to the Government of Brazil for signature on February 8, 1989. The exchange of signed documents took place in Abidjan in May 1989 at the occasion of the Sixth Council Session and the Project became officially operational at that time.

The Technology Foundation of the State of Acre (FUNTAC), is Executing Agency and will, in the execution of the Project, collaborate with the Brazilian Institute for Renewable Natural Resources (IBAMA), the National Institute for Amazon Research (INPA), The Superintendency for the Development of the Amazon (SUDAM) and the Secretary of Environment and Urban Development of the State of Acre (SEDUMA).

Contracts have been concluded between FUNTAC and each of the above mentioned cooperating agencies to make formal their commitment to participate in the execution of the Project.

A Steering Committee made up of representatives of the Brazilian Agency for Cooperation (ABC), FUNTAC, IBAMA, INPA, SEDUMA and

ITTO has been established. This Committee had its first working meeting on 26-27 September 1989 in Rio Branco, Acre. (The committee had, without ITTO representation, been called together in an earlier meeting to discuss its terms of reference. These Terms of Reference were approved by the First Meeting.) A second Steering Committee meeting was held on 5 - 7 March, 1990 in conjunction with the first progress review, and a third on October 2 - 25, 1990.

A consultative committee with representatives from FUNTAC and the various groups which will be economically and socially affected by the development of the Project area has been formed. This Committee had its first meeting in October 1989.

The Steering Committee decided, at its meeting in March 1990 to admit, as a regular member, a representative of the Consultative Committee.

The Development Bank of Brazil is financing efforts for the development of social infrastructure and marketing as support to the Project.

The first progress review was conducted jointly by ITTO and ABC on 5 - 7 March, 1990.

The following broad work plan has been drawn up:

<u>Activity</u>	<u>Period of execution</u>	<u>Notes</u>
- Forest inventory	1989/1990	Completed
- Socio/economic survey	1989	Completed
- Survey of forest based industries	1989	Completed
- Ecological zoning based on remote sensing data	1989/1990	Completed
- Soil survey	1990	Completed
- Floristic inventory	1990	Completed
- Hydrological survey	1990	Completed

<u>Activity</u>	<u>Period of execution</u>	<u>Notes</u>
- International workshop	1990	Completed
- Development of forest management plan	1990	Completed
- Logging and silviculture	1991/92/93	
- Industrial processing of wood and other forest products	1991/92/93	
- Marketing	1991/92/92	

A number of support projects, which are desirable for refining and strengthening the Project, have been identified, dealing with the following fields:

- Nutrient cycling in the forest,
- Bamboo,
- Fauna,
- Ethnobotany
- Economic botany/chemical industrial processes based on natural resources, and
- Wood technology.

These support projects are completed or in progress.

A set of maps have been prepared over the Project area, based on satellite imagery material supported by ground checking, including maps on:

- (i) vegetation,
- (ii) land use,
- (iii) hydrology,
- (iv) soils,
- (v) geology and
- (vi) geo-morphology.

Reports on the following aspects are available in Portuguese:

- Socio/economic study,
- Forest inventory,
- Sawmills in Rio Branco area,
- Transport and marketing of extractives from Antimari
- Extractives as an aspect of forest management
- Hydrologic survey
- Fauna
- Study on bamboo

- Economic botany
- Ethnobotany
- Ecosystem study
- Basic management concepts (a preliminary report) and
- Study on natural rubber stands

Plans for various aspect of Phase II of the Project, which will focus on resource utilization, are under preparation.

An air strip and accommodation and office facilities inside the Project area have been completed. A school and a dispensary have been established. Four more schools are planned. A doctor and two nurses visit the Project area regularly. Teachers have been selected from among the people in the area and have been further trained. Special text books and other teaching aids have been prepared for use in the education programme. All children living in the Project area are attending school and classes for adult members of the forest communities are offered.

The Project execution is proceeding according to schedule and efforts are made to accelerate the work.

- (4) PD 34/88(F): Conservation, Management, Utilization and Integrated and Sustained Use of the Forests in the Chimanes Region, Beni Department, Bolivia

Sources of Funding:	Government of Bolivia	- \$1,394,000
	Government of Japan	- \$ 575,000
	Government of Switzerland	- \$ 355,000
	Government of France	- \$ 200,000
	Government of Denmark	- \$ 125,000
	WWF	- \$ 5,000

Budget:	Total	- \$2,654,000
	ITTO contribution	- \$1,260,000

Implementing Agencies: Center for Forest Development, Bolivia, in cooperation with Conservation International.

Starting Date/Duration: April, 1990/Three years

The Project was approved by the Council at its Fifth Session in November 1988, but financing for immediate implementation was not made available at that time.

At the Sixth Session of the Council full financing of the Project was secured. An Agreement for regulating the implementation of the Project was concluded in April, 1990.

The Government of Bolivia has encountered problems in settling a compensation claim for land rights surrendered by the indigenous people which previously used the land allocated for the Project. Steps are being taken to resolve this conflict. Some delay in Project implementation is foreseen.

A report on the status of the Project at the end of September 1990 is contained in document PCF(VII)/8.

The Permanent Committee requested, at its Seventh Session in November 1990, the Secretariat to closely monitor the progress of the Project and to conduct a special review of the performance of the Project before the Eighth Session of the Committee and to report to that Session of the Committee on the findings of the Review.

(5) PD 53/89 Rev.1 (F): Preparation of A Master Land-Use Plan for Forest Areas, Cameroon

Sources of Funding: Government of Japan - \$373,315  
Government of Norway - \$ 21,685

Budget: Total - \$480,000 + contribution in kind  
by the Government of Cameroon

ITTO contribution - \$395,000

Implementing Agency: Government of Cameroon

Starting Date/Duration: October 1990/One year

The Project was approved by the Council at its Sixth Session in May 1989 and at its Eighth Session the Council allocated funds for implementation.

An Agreement between ITTO and the Government of Cameroon was concluded on September 19, 1990.



A first transfer of funds from the Special Account was made on September 20, 1990. Work on the Project has been initiated.

(6) PD 58/89 (F): Tropical Forestry Internship

Source of Funding: US Forest Service - \$109,500

Budget: Total - \$257,700  
ITTO Contribution - \$109,500

Implementing Agency: United States Department of Agriculture  
Forest Service, Institute of Tropical  
Forestry, Rio Piedras, Puerto Rico

Starting Date/Duration: April 1990/Three years

The Project was approved by the Council at its Sixth Session in May 1989. Financing for the implementation of the Project was not made available at that time, but the Council authorized financing and implementation as soon as earmarked funds are available in the Special Account.

In April 1990 the US Forest Service made available funds for ITTO's contribution to the Project budget.

Invitations to apply for internships have been circulated and the selection of candidates has been initiated.

(7) PD 69/89 Rev.1 (F): Workshop on Sustained Tropical Forest Management with Special Reference to the Atlantic Forest

Source of Funding: Government of Japan - \$68,000

Budget: Total - \$68,000 + contribution in kind  
by IBAMA  
ITTO contribution - \$68,000

Implementing Agency: Brazilian Institute for the Environment  
and Renewable Natural Resources (IBAMA) in  
Cooperation with the Brazilian Foundation  
for Nature (FUNATURA)

Starting date/Duration: July 1990/Eight months

The Project was approved by the Council at its Seventh Session and financing was allocated to allow immediate implementation.

An Agreement between ITTO and IBAMA, for the execution of the Project, was concluded in July 1990.

The Workshop is planned to be held in March, 1991.

- (8) PD 74/90 (F,I): Better Utilization of Tropical Timber Resources in Order to Improve Sustainability and Reduce Negative Ecological Impacts

Source of Funding: Government of Germany - \$500,000

Budget: Total - \$500,000 + contribution in kind  
by participating countries  
ITTO Contribution - \$500,000

Implementing Agency: The Federal Research Center for Forestry and Forest Products, Hamburg, Germany

Starting Date/Duration: December 1990/Two years

The Council approved the Project, at its Eighth Session in May 1990. and allocated funds for its immediate implementation.

An Agreement for the execution of the Project, prepared by the Government of the Federal Republic of Germany, was signed by the Executive Director on December 11, 1990.

A special account has been established by ITTO at the Deutsche Bundesbank in Frankfurt am Mein and a first transfer of funds was requested on December 13, 1990.

Work on the Project has been initiated.

- (9) PD 75/90 (F): Development of Genetic Resistance in the Tropical Hardwood Iroko to the Damaging Insect Pest: Phytolyta lata

Source of Funding: Government of Japan - \$157,410  
Government of Denmark - \$100,000

Budget: Total - \$322,743  
ITTO Contribution - \$257,410

Implementing Agency: Forest Products Research Institute,  
Kumasi, Ghana

Starting Date/Duration: December 1990/Three years

The Council approved the Project at its Eighth Session in May 1990 and allocated funds for immediate implementation.

A draft Agreement on the implementation of the Project was sent to the Ministry of Lands and Natural Resources, Ghana on June 5, 1990. The final text was agreed upon on November 15 and the Project became operational on December 10, 1990, when the Agreement was signed.

(10) PD 76/90 (F): Project Formulation Workshop for  
Establishing a Network of Genetic Resources  
Centres for Adapting to Sea Level Rise

Source of Funding: Government of the United Kingdom  
- \$50,000  
Government of Japan - \$50,000

Budget: Total - \$100,000  
ITTO Contribution - \$100,000

Implementing Agency: Centre for Research on Sustainable  
Agricultural and Rural Development,  
Madras, India

Starting Date/Duration: August 1990/Six months

The Project was approved by the Council at its Eighth Session in May 1990 and funds were made available for its immediate implementation.

The workshop will be held in Madras on January 15 - 19, 1991.

(11) PD 86/90 (F): International Network for Developing Human  
Resources in Tropical Forest Management  
(Phase I)

Sources of Funding: Government of Japan - \$400,000  
Government of Denmark - \$100,000

Budget: Total - \$500,000  
ITTO Contribution - \$500,000

Implementing Agency: ITTO Secretariat

Starting Date/Duration: December 1990/One year

The Council approved the Project at its Eighth Session in May 1990 and made funds available for immediate implementation.

A research institution in each tropical region is to be assigned as coordinator of information collection and dissemination. The ANUTECH of the Australian National University has been selected to coordinate the implementation activities in the Asia/Pacific region. Inquiries for the selection of coordinating institutions for the other two regions are in progress.

A proposal for implementing the Project in the Asia/Pacific region was presented to the Permanent Committee at its Seventh Session in November 1990, in document PCF(VII)/9. This Proposal was approved and a limit of \$200,000 was set for its implementation.

An Agreement for executing the Project in the Asia/Pacific region has been concluded with ANUTECH.

#### 3.3.4 Projects under Preparation for Implementation

##### 3.3.4.1 Projects with Allocated Finance

Fifteen projects in the field of reforestation and forest management, which have been approved by the Council and for which financing is available, had still not become operational at the end of 1990.

- (1) PD 15/87 (F): The Biology of the Okoume (Aucoumea klaineana Pierre) in Gabon

Source of Funding: Governments of the Netherlands and Gabon  
jointly - \$427,500  
ITTO - \$417,500

Budget: Total - \$845,000  
ITTO Contribution - \$417,500

Implementing Agency: TROPENBOS in partnership with la  
Direction du Reboisement and CENAREST

Starting Date/Duration: To be determined/Three years

The Project was approved for immediate implementation by the Council at its Third Session in November 1987.

The execution of this Project requires that a Memorandum of Understanding between the Governments of the Netherlands and Gabon is formulated and approved by both Governments. This Memorandum is under negotiation between the two governments.

(2) PD 68/89 Rev.1 (F): Management of Tapajòs National Forest  
for Sustainable Production of  
Industrial Timber

Source of Funding: Government of UK - \$1,513,146

Budget: Total - \$3,037,946 + contributio in kind  
by IBAMA  
ITTO contribution - \$1,513,146

Implementing Agency: Brazilian Institute for the Environment  
and Renewable Natural Resources (IBAMA)

Starting date/Duration: To be determined/Five years

The Council approved the Project at its Seventh Session in November 1989. Financing was at that time not made available, but the Council authorized the Executive Director to start implementation of the Project as soon as financing was secured through earmarked contributions to the Special Account.

The Government of the United Kingdom provided full financing for the Project through an earmarked contribution to the Special Account in February, 1990.

A draft Agreement for the implementation of the Project is expected to be concluded shortly.

- (3) PD 71/89 Rev.1 (F): The Economic and Environmental Value of Mangrove Forests and Present State of Conservation

Source of Funding: Government of Japan - \$270,000

Budget: Total - \$270,000  
ITTO contribution - \$270,000

Implementing Agency: Japan International Association for Mangroves in cooperation with Okinawa International Association of Mangrove

Starting date/Duration: To be determined/Eighteen months

The Project was approved by the Council at its Seventh Session in November 1989, but financing was not made available at that time.

At its Eighth Session in May 1990 the Council allocated full financing for the Project.

A draft Agreement regulating the execution of the Project was sent to the Japan International Association for Mangroves in June 1990 and a letter requesting reply was sent on 21 December, 1990.

- (4) PD 77/90 (F): Establishment of A Pilot Area for Silviculture in Closed Forests in Congo

Source of Funding: Government of Japan - \$529,000

Budget: Total - \$642,000  
ITTO Contribution - \$529,000

Implementing Agency: Centre Pilote d'Afforestation en Limba (CPAL)

Starting Date/Duration: To be determined/Five years

The Project was approved by the Council at its Eighth Session in May 1990, but financing was not made available at that time. The Council allocated full funding at its Ninth Session in November 1990.

A draft Agreement for the implementation of the Project was sent to the Ministry of Forest Economics, Congo on 28 December, 1990.

(5) PD 84/90 (F): The Establishment of A Demonstration Plot  
for Rehabilitation of Forests Affected by Fire in  
East Kalimantan [Phase II of PD 17/87 (F)]

Source of Funding: Government of Japan - \$441,000  
Government of Switzerland - \$150,000  
Government of Norway - \$100,000  
Government of the Netherlands - \$ 13,000

Budget: Total - \$867,050  
ITTO Contribution - \$704,000

Implementing Agency: The Agency for Forestry Research and  
Development, Ministry of Forestry,  
Indonesia

Starting Date/Duration: To be determined/Two years

The Council approved the Project and made funds available for an immediate implementation at its Eighth Session in May 1990.

An Agreement for the execution of the Project has been drafted and was, on June 5, 1990, submitted to the Ministry of Forestry, Indonesia for consideration and was later discussed with the Ministry in December 1990 when a revised text was submitted for approval.

(6) PD 89/90 (F): Sustainable Forest Management and Human Resources  
Development in Indonesia (Phase I)

Source of Funding: Government of Japan - \$3,800,000

Budget: Total - \$4,250,000  
ITTO Contribution - \$3,800,000

Implementing Agency: Ministry of Forestry, Indonesia

Starting Date/Duration: To be determined/Three years

The Project was approved by the Council at its Eighth Session in May 1990 and funds were made available for immediate implementation.

A draft for Agreement between ITTO and the Government of Indonesia has been prepared and was, on June 5, 1990, sent to the Ministry of Forestry, Indonesia for consideration and was discussed in detail with the Government in December 1990 when a revised document was presented for approval.

- (7) PD 95/90 (F): Forest Management in the Alexander von Humboldt National Forest, Phase I, II, III

Source of Funding: Government of Japan - \$506,000  
To be determined - \$994,000

Budget: Total: - \$2,701,200  
ITTO Contribution: - \$1,500,000  
(Phase I : \$506,000,  
Phase II : \$497,000,  
Phase III: \$497,000)

Implementing Agency: Directorate General for Forestry and Wild Life, Ministry of Agriculture, Peru

Starting Date/Duration: To be determined/One year

The Project was approved by the Council at its Ninth Session and funds were made available for implementing Phase I.

A draft Agreement for the implementation of Phase I was sent to the Government of Peru, through the Embassy in Tokyo, on December 20, 1990.

- (8) PD 97/90 Rev 1. (F): Multi Stage Survey of Tapajós National Forest

Source of Funding: Government of Japan - \$102,400

Budget: Total - \$102,400  
ITTO Contribution - \$102,400

Implementing Agency: Fundação Pró-Natureza (FUNATURA)

Starting Date/Duration: To be determined/Eight months

The Project was approved by the Council at its Ninth Session in November 1990 and funds were made available for immediate implementation.

Draft Agreement for the implementation of the Project was sent to FUNATURA, through the Brazilian Embassy in Tokyo, on December 18, 1990.

- (9) PD 99/90 Rev. 1 (F): Establishment of Rio Preto's National Forest

Source of Funding: Government of Japan - \$469,000



Budget: Total - \$1,393,000  
ITTO Contribution - \$ 469,000

Implementing Agency: Brazilian Institute for Environment and  
Renewable Natural Resources (IBAMA)

Starting Date/Duration: To be determined/Five years

The Council approved the Project at its Ninth Session and made funds available for immediate implementation.

Draft Agreement was sent to the Government of Brazil, through the Embassy in Tokyo, on December 18, 1990.

(10) PD 103/90 Rev. 1 (F): Training and Manpower Development in  
Community Forestry Management

Source of Funding: Government of Japan - \$1,203,000

Budget: Total - \$1,203,000  
ITTO Contribution - \$1,203,000

Implementing Agency: The Institute of Forestry, Tribhuvan  
University, Nepal

Starting Date/Duration: To be determined/Four years

The Council approved the Project at its Ninth Session and made available funds for immediate implementation.

A draft Agreement for the implementation of the Project was sent to the Ministry of Forests and Soil Conservation, Government of Nepal on December 20, 1990.

(11) PD 104/90 Rev. 2 (F): Studies of the Management Standards of  
Hill Dipterocarp Forest in Sarawak from  
a Watershed Management Point of View

Source of Funding: Government of Japan - \$412,900

Budget: Total - \$412,900  
ITTO Contribution - \$412,900

Implementing Agency: Forest Agency of Japan

Starting Date/Duration: To be determined/Two years

The Project was approved by the Council at its Ninth Session and funds were made available for immediate implementation.

An Agreement for the implementation of the Project is under preparation.

(12) PD 105/90 Rev. 1 (F): Model Forest Management Areas

Source of Financing: Government of Japan - \$1,660,176  
Government of Switzerland - \$ 100,000

Budget: Total - \$2,019,344  
ITTO Contribution - \$1,760,176

Implementing Agency: Forest Department, State Government of Sarawak

Starting Date/Duration: To be determined/Two years

The Council approved the Project at its Ninth Session in November 1990 and made available financing for immediate implementation.

A draft agreement regulating the implementation of the Project was sent to the State Government of Sarawak, through the Malaysian Embassy in Tokyo, on December 18, 1990.

(13) PD 106/90 Rev. 1 (F): Development of the Lanjak-Entimau Wildlife Sanctuary as a Totally Protected Area, Phase I

Source of Financing: Government of Japan - \$1,450,837  
Government of Denmark - \$ 200,000  
Government of Switzerland - \$ 100,000

Budget: Total - \$1,985,141  
ITTO Contribution - \$1,750,837

Implementing Agency: Forest Department, State Government of Sarawak

Starting Date/ Duration: To be determined/Two years

The Project was approved by the Council at its Ninth Session in November 1990 and funds were made available for immediate implementation.

A draft Agreement for the implementation of the Project was sent to the State Government of Sarawak, through the Malaysian Embassy in Tokyo, on December 18, 1990

(14) PD 115/90 Rev.1 (F): Rehabilitation of Natural Forests

Source of Financing: Government of Japan - \$550,797

Budget: Total - \$887,879  
ITTO Contribution - \$550,797

Implementing Agency: Forest Department, Peninsular Malaysia

Starting Date/Duration: To be determined/Four years

The Project was approved by the Council at its Ninth Session in November 1990 and full financing was allocated to enable immediate implementation.

A draft Agreement for the implementation of the Project was sent to the Government of Malaysia, through the Malaysian Embassy in Tokyo, on December 18, 1990.

(15) PD 116/90 (F): Appropriate Forest Technologies

Source of Financing: Government of Japan - \$318,000  
The World Bank - \$337,000

Budget: Total - \$655,000  
ITTO Contribution - \$318,000

Implementing Agency: Asia Region Technical Department/The World Bank

Starting Date/Duration: To be determined/One year

The Project, which was submitted by the Government of Japan in cooperation with the World Bank, was approved by the Council at its Ninth Session in November 1990 and financing for immediate implementation was made available.

A draft Agreement for the implementation of the Project was sent to the World Bank on December 7, 1990.

3.3.4.2 Projects Awaiting Financing

The Council has approved twelve Projects for which full financing was still not available at the end of 1990. A total of \$15,599,156 is required for implementing these Projects. Financing pledged by Member Countries for this purpose amounted to \$200,000 at the end of 1990.

- (1) PD 55/89 (F): Research and Development Activities in the Framework of Forest Management Operations in Côte d'Ivoire's Closed Forests: Establishment of a Typological Classification of Forests on the Basis of Silvicultural Operations

Sources of Funding: To be determined

Budget: Total - \$1,464,000 + contribution  
in kind by the Government of  
Côte d'Ivoire  
ITTO contribution - \$1,464,000

Implementing Agency: SODEFOR/C.T.F.T.

Starting date/Duration: To be determined/Five years

The Project was approved by the Council at its Sixth Session in May 1989. Funds for Project implementation were not allocated at that time, but the Council authorized financing and implementation of the Project as soon as unearmarked funds are available.

Unearmarked funds for full financing of the project have still not become available in the Special Account at the end of 1990.

- (2) PD 81/90 (F): Investigation and Application of Forest Management Systems in Tropical and Sub-tropical Rain Forests in the Choré and Bajo Paragua Forest Production Reserves

Source of Funding: To be determined

Budget: Total - \$2,890,000  
ITTO Contribution - \$2,290,000

Implementing Agency: Universidad Autonoma Gabriel René Moreno

Starting Date/Duration: To be determined/Five years

The Project was approved by the Council at its Eighth Session in May 1990, but funds for its implementation were not made available at that time. The Council authorized the Executive Director to start implementation of the Project as soon as earmarked funds covering the total ITTO contribution are available in the Special Account. Such funds have still not become available.

- (3) PD 83/90 (F,I): Research and Development in Logging
- Source of Funding: Government of Denmark - \$ 200,000  
To be determined - \$ 2,250,000
- Budget: Total - \$2,450,000 + contribution in  
kind by participating countries  
ITTO Contribution - \$2,450,000
- Implementing Agency: To be determined
- Starting Date/Duration: To be determined/Three years

The Project was approved by the Council at its Eighth Session in May 1990, but full financing was not made available at that time. The Council authorized the Executive Director to start implementing the Project as soon as full financing in the form of earmarked funds is available in the Special Account. Full financing has still not become available.

- (4) PD 85/90 (F): Technical Assistance for the Master Plan for Forest Plantations
- Source of Funding: To be determined
- Budget: Total - \$1,904,839  
ITTO Contribution - \$1,305,742
- Implementing Agency: Directorate General of Reforestation and  
Land Rehabilitation, Ministry of Forestry,  
Indonesia
- Starting Date/Duration: to be determined/Four years

The Project was approved by the Council at its Eighth Session but funding was not made available at that time. The Council has authorized the Executive Director to start implementation as soon as

earmarked funds covering ITTO's contribution are available in the Special Account. Full funding has still not been secured.

- (5) PD 88/90 (F): Sustainable Selective Harvesting of Mahogany in Bolivia

Source of Funding: To be determined

Budget: Total - \$348,914  
ITTO Contribution - \$348,914

Implementing Agency: Conservation International

Starting Date/Duration: To be determined/Four Years

The Project was approved by the Council at its Eighth Session but funding was not made available at that time. The Council authorized the Executive Director to start implementation as soon as earmarked funds covering the total ITTO contribution are available in the Special Account. Such funds have still not become available.

- (6) PD 98/90 Rev. 1 (F): Establishment of Tefé's National Forest

Source of Funding: To be determined

Budget: Total - \$1,346,000  
ITTO Contribution - \$1,222,000

Implementing Agency: Brazilian Institute for Environment and Renewable Natural Resources (IBAMA)

Starting Date/Duration: To be determined/Five years

The Project was approved by the Council at its Ninth Session and the Executive Director was authorized to start implementation as soon as full funding, in the form of earmarked contributions, are available. Full funding has still not been secured.

(7) PD 100/90 Rev.1 (F): Establishment of Ibirama's National Forest

Source of Funding: To be determined

Budget: Total - \$1,055,000  
ITTO Contribution - \$ 451,000

Implementing Agency: Brazilian Institute for Environment and  
Renewable Natural Resources (IBAMA)

Starting Date/Duration: To be determined/Five years

The Project was approved by the Council at its Ninth Session in November 1990. Financing was not allocated at that time, but the Executive Director was authorized to start implementation as soon as earmarked funds for ITTO's total contribution become available. Full funding has still not been secured.

(8) PD 101/90 Rev.1 (F): Case Studies for Sustainable Forest Management

Source of Funding: To be determined

Budget: Total - \$360,000  
ITTO Contribution - \$360,000

Implementing Agency: Ministry of Forestry, Indonesia and  
JOFCA, Japan

Starting Date/Duration: To be determined/Two years

The Project was approved by the Ninth Session of the Council. Funds for Project implementation were not allocated at that time, but the Executive Director was authorized to start implementation as soon as earmarked funds for the total ITTO contribution become available in the Special Account. Full funding has still not been secured.

(9) PD 110/90 Rev.1 (F): Forest Increment and Yield Studies for Sustainable Management - Phases I and II

Source of Financing: To be determined

Budget: Total - Phase I, \$ 440,000  
Phase II, \$1,304,050  
ITTO Contribution - Phase I, \$ 389,000  
Phase II, \$1,158,500

Implementing Agency: Forest Department, Sarawak

Starting Date/Duration: To be determined/Phase I: Two years  
Phase II: Three years

The Council approved the Project at its Ninth Session. Financing was not made available, but the Executive Director was authorized to start implementation as soon as earmarked funds become available for the total ITTO contribution. Full financing has still not been secured.

(10) PD 111/90 Rev.1 (F): Assessment of the Biological Potential for Timber Growth; Increment and Yield in the Forests in the State of Sarawak

Source of Financing: To be determined

Budget: Total - \$975,000  
ITTO Contribution - \$825,000

Implementing Agency: Forest Department, Sarawak

Starting Date/Duration: To be determined/Two years

The Council approved the Project at its Ninth Session in November 1990. Funds were not allocated to the Project at that time, but the Executive Director was authorized to start implementation as soon as earmarked funds become available for the total ITTO contribution. Full financing has still not been secured.

(11) PD 112/90 Rev.1 (F): System Analysis, Modelling and Hierarchic Geographical Information System (GIS) for Research, Management and Development in Sarawak

Source of Financing: To be determined

Budget: Total: \$3,055,000  
ITTO Contribution: \$2,855,000

Implementing Agency: Forest Department, Sarawak

Starting Date/Duration: To be determined/Three years

The Project was approved by the Council at its Ninth Session in November 1990. Financing was not allocated at that time, but the Council authorized the Executive Director to start implementation as soon as



earmarked funds for the total ITTO contribution become available in the Special Account. Full financing has still not been secured.

(12) PD 114/90 (F): Workshop on Conservation and Sustainable Utilization of Mangrove Forests in the Latin America and Africa Regions

Source of Financing: To be determined

Budget: Total \$480,000  
ITTO Contribution: \$480,000

Implementing Agency: Japan International Society for Mangroves in cooperation with National Mangrove Committees through the International Society for Mangrove Ecosystems Network

Starting Date/Duration: To be determined/Twenty months

The Project was approved by the Council at its Ninth Session in November 1990. Financing was not allocated at that time, but the Executive Director was authorized to start implementation as soon as earmarked funds for the total ITTO contribution become available in the Special Account. Full financing has still not been secured.

The Executive Director wrote, on December 17, 1990, to ISME requesting an informal discussion concerning the implementation of the Project and ISME's role in this work.

#### 3.4 Non-Project Activities

##### 3.4.1 Work Programme and Priority Activities

The Council requested, at its Sixth Session in May 1989, the Executive Director to prepare a work programme for the Secretariat for the years 1990 and 1991 in the field of reforestation and forest management. This request was based on proposals made by the Permanent Committee at its Fourth Session.

The Council further requested, also based on recommendations by the Permanent Committee, the Executive Director to propose activities for priority implementation in eight specified action areas.

The proposed work programme and the proposed activities were considered by the Committee at its Fifth Session in November 1989. The Committee combined the two proposals into a "Programme of Work for ITTO in the Field of Reforestation and Forest Management for the Year 1990", which contains a work programme for the Secretariat and action proposals for the Organization in the following eight areas:

- (i) Develop guidelines for "best practice" and sustainability in relation to the sustainable management of natural forests and plantations;
- (ii) Develop the economic case for natural forest management;
- (iii) Strengthen policy initiatives embracing the forestry sector;
- (iv) Increase awareness and mobilize support to ensure the sustainable management and conservation of tropical forests;
- (v) Develop demonstration models of management for the sustainable production of timber and non-timber products and conservation;
- (vi) Strengthen research on responses to silvicultural treatment;
- (vii) Develop human resources in tropical forest management;
- (viii) Consider incentives to encourage sustainable management.

The "Programme of Work for ITTO in the Field of Reforestation and Forest Management for the Year 1990" was submitted, with recommendations that it be endorsed, to the Seventh session of the Council which took note of the Report containing the Programme.

The Programme of work has guided the work of the Secretariat and the Committee during 1990 and activities corresponding to all eight action areas were initiated during the year.

A "Programme of Work for 1991 to Implement the Action Plan in the Field of Reforestation and Forest Management" was adopted by the Committee at its Seventh Session in November 1990.

3.4.2 Guidelines for Best Known Practice in Forest Management

The Overseas Development Administration (ODA) of the United Kingdom made available to ITTO an expert for a total work input of two months to prepare a paper regarding the need for and scope of guidelines for the management of natural forests and plantations in the tropics. The Paper was completed in January 1990.

Australia also offered to assist in the development of guidelines by making available expertise and providing advice based on the experience with development and operation of management codes of practice in Australia.

In November 1989, at its Fifth Session, the Committee proposed that a small Working Group of representatives of Producer and Consumer Members, International agencies, NGOs and the private sector be convened to consider the paper under preparation by ODA, and other relevant documents. The Working Group was to, based on these documents, develop recommendations and principles on how the guidelines are to be prepared and advise the Secretariat on the action to be taken for commissioning the preparation of the Guidelines for Best Known Practice.

The Council endorsed, at its Seventh Session, the establishment of the Working Group and authorized the Executive Director to allocate necessary funds from the Administrative Budget to cover the expenses of representatives of Member Governments to participate in the work of the Group.

The Working Group presented a report on its work, containing draft Guidelines for Sustainable Management of Natural Forests, to the Sixth Session of the Committee in May 1990. The Committee revised the draft Guidelines and submitted them to the Council with a recommendation that they be adopted as ITTO's Guidelines and given widest possible distribution. The Council endorsed the Committee's recommendation.

3.4.3 New Activities

The Committee decided during the year 1990 to initiate a number of new activities to promote sustainable management and utilization of tropical forests.

(1) The Economic Case for Natural Forest Management

Budget requirement: \$219,000 (for the Asia/Pacific region)

The Permanent Committee on Reforestation and Forest Management included in its Programme of Work an activity which aims at assessing the economic values gained from tropical forest management and gave this activity high priority. It was proposed in the Programme that the work should be initiated in the Asia/Pacific region and later on, when some experience had been gained from this pilot effort, extend it to the other tropical regions.

The Committee decided, at its Sixth Session on 16 - 23 May, 1990, to recommend to the Council to approve and finance a programme of research and data collection to establish the economic viability of natural forest management. The Council authorized, at its Eighth Session, the Executive Director to finance the implementation of the Activity in the Asia/Pacific region from the Special Account.

An Agreement was concluded between ITTO and the Forest Research Institute of Malaysia (FRIM), on 17 December, 1990, for implementing the Activity in the Asia/Pacific region.

(2) Demonstration Models for Sustainable Production of Timber and Non-timber Products and Conservation

Budget requirement: Not determined.

The Permanent Committee on Reforestation and Forest Management included in its Programme of Work an activity which aims to "Develop Demonstration Models of Management for the Sustainable Production of Timber and Non-timber Products and Conservation".

The objective is to establish a network of demonstration areas which can be used by Member Countries in transfer of knowledge, for promoting sustainable forest management and for inspiring the development of new ideas and systems in tropical forest management. ITTO's forest management projects should as far as possible be designed so that they can be included in the network, and other areas where successful management systems are applied should be identified and incorporated.

The Executive Director wrote to all Member Countries, on 7 March, 1990, and requested them to identify areas of successful forest management on which demonstration sites can be established and to send information on these areas to the Secretariat.

Only three countries had responded by the end of 1990 - China, Australia and Ghana.

- (3) Technical Workshop to Explore the Feasibility of Forest Options  
Budget requirement: \$400,000 (of which ITTO: \$100,000)

This Activity was submitted (as a project proposal) by the Government of Thailand to the Seventh Session of the Committee in November 1990. The Committee decided to recommend to the Council that the Activity be supported by ITTO provided that other international organizations also pledge substantial support for it. It was suggested that ITTO should be prepared to co-finance the Activity to a maximum of \$100 000.

The Council decided, at its Ninth Session in November 1990 to adopt the recommendation made by the Committee.

An Agreement regulating the implementation of the Activity and ITTO's support is in the final stages of negotiation. A final draft was sent to the Office of the National Environment Board, Thailand on December 28, 1990.

A preparatory committee meeting is scheduled for January 14 - 15, 1991. The Workshop is tentatively planned to be held on April 25 - 30, 1991.

(4) Working Group on Guidelines for Management of Tropical Forest Plantations

Budget requirement: \$50,000

The Permanent Committee decided at its Seventh Session in November 1990 to establish this Working Group and recommended to the Council that \$50,000 be made available to meet the costs of convening the Group. The Council, at its Ninth Session, made available the required amount from the Administrative Account.

The Government of Germany pledged, at the Seventh Session of the Committee, to finance consultancy services for preparing a first draft of the Guidelines and to provide a venue for the meeting of the Working Group.

Letters to selected member countries and organizations, requesting nominations for participants in the Working Group, were sent on 27 November, 1990.

The timing of the meeting of the Working Group need to be coordinated with that of the Working Group on Incentives (see Item (v), below). It is also desirable that the venues of the meetings are reasonably close to each other so that traveling time for the three who take part in both groups - the Assistant Director, the Chairman and the Vice-chairman - is minimized.

(5) Working Group on Incentives for Tropical Forest Management

Budget requirement: \$50,000

The Committee decided, at its Seventh Session in November 1990, to establish this Working Group and to request that the Council make available \$50,000 to meet the costs of convening the Group. The Council decided, at its Ninth Session to make available the requested amount from the Pre-project Sub-account of the Special Account.

The Government of the Netherlands pledged, at the Seventh Session of the Committee, to finance consultancy services to compile a

first draft of an ITTO document on incentives for tropical forest management. This draft should be based on the incentives document submitted to the Seventh Session of the Committee [PCF(VII)/3] and the report on the Pre-project "Incentives in Producer and Consumer Countries to Promote Sustainable Development of Tropical Forests", the draft of which was expected to be available, in preliminary draft form, at the end of January 1991.

Letters to selected Member Countries and international organizations were sent on November 27, 1990 requesting nominations of participants in the Working Group.

### 3.5 ECOLOGY

An ecologist, Dr. Per Wegge of Norway, joined the Secretariat on March 9, 1990. The post is financed by the Government of Norway for an initial period of two years.

During the year 1990 the ecologist has conducted extensive literature surveys and has devoted efforts to establishing contacts and working relations with Member Governments and NGO's. He has, in this effort, participated in a number of important international conferences and workshops.

The Ecologist has assisted in project development and monitoring to assist in giving due emphasis to conservation and tropical forest ecology in ITTO supported Projects. He arranged and supervised, as a special task, ITTO Project PD 78/90 (F) "Seminar on Sustainable Development of Tropical Forests", which focused on non-timber yields from tropical forest management, and took active part in the execution of the Pre-project "Realistic Strategies of Biological Diversity in Tropical Moist Forest".

4            FOREST INDUSTRY

4.1         Pre-Projects

4.1.1      Completed Pre-Projects

The pre-project study on "Appropriate Supply of Wood Raw Materials in Producing Countries with Dwindling Forest Resources: The Case of the Philippines", implemented by Department of Environment and Natural Resources (DENR, Philippines), was completed in November 1990.

The pre-project study produced a comprehensive assessment of the forestry and wood industry situation in the Philippines. The pre-project study's primary concerns were the assessment of the demand for industrial tropical timber raw materials, review of logging and transport systems and wood processing technologies, silvicultural potential assessment of LUS, timber markets and trade, industrial plantation development, and problems associated with industrial utilization of available raw materials particularly in the remaining native forests, including forest conservation measures. The 530-page Report of the study contains important information and recommendations for the improvement of decisions in forest utilization and development in the Philippines in general, and in particular for the implementation of an ITTO approved project designed to carry out a research and development program to improve processing of logging residues and silvicultural thinnings and to promote their utilization as housing materials in the Philippines (PD 63/89 Rev.1).

4.1.2      Pre-Projects in Progress

Five approved pre-projects are under implementation or under preparation for execution. Summaries of their status of development at the end of 1990 are given below.

- (1)    Tropical Timber in Construction and Development of Harmonized Stress Grading Rules

Budget Requirement: \$50,000



The study on "Tropical Timber in Construction and Development of Harmonized Stress Grading Rules" has been contracted to the United States Forest Products Laboratory. The study will: (1) compile and review the available documentation on stress grading rules and tropical timber structural applications; (2) review the status of tropical timber utilization in construction; (3) draft documents with needed technical information; (4) assess the role and potential contribution of harmonized stress grading rules to increased use of tropical timber in construction; and (5) prepare recommendations and proposals for actions to promote production, trade and consumption of appropriately stress graded sawn tropical hardwood. The study is expected to be completed at the end of 1990.

The Forest Products Laboratory has subcontracted Engineering Data Management (EDM) to assist in the pre-project implementation. EDM has completed a survey of grading and timber construction practices in the three producing regions.

Several technical meetings have been held or are scheduled for the pre-project study in the three main timber producing regions. In each meeting a host organization was identified and had agreed to assist in organizing and coordinating the meeting, as well as contacting participants. EDM is pleased with the level of interest within the various countries and with the attendance by timber producers, architects, structural engineers, code officials, government administrators, researchers and builders. The objective of each of the meetings was to discuss the following issues:

1. Training in timber construction;
2. Availability of stress graded timber;
3. Use of stress graded timber;
4. Timber species used for construction;
5. Cultural restrictions limiting the use of timber for construction;
6. Domestic and export markets for stress graded timber.

These general issues may be modified based on inputs from the host organizations. This approach is expected to provide valuable basic data for interpreting the use of stress graded timber and the potential for developing harmonized stress grading codes. This information will be

evaluated and recommendations made in the final report for promoting the production, trade and consumption of stress graded sawn hardwood. The final report is expected to be finalized in time for presentation at the Eight Session of the ITTO Permanent Committee on Forest Industry.

(2) Industrial Processing of Rubber Wood Timber in Africa (Cameroon, Côte d'Ivoire, Ghana, Liberia)

Budget Requirement: \$133,000

The study on "Industrial Processing of Rubber Wood Timber in Africa (Cameroon, Cote d'Ivoire, Ghana, Liberia)" is being implemented under the responsibility of the Office National de Developpement des Forets (ONADEF), formerly Centre National de Developpement des Forets (CENADEFOR), Cameroon. This pre-project study provides assistance to selected African countries with rubber plantations to plan future manufacturing and trade in rubber wood products. The work includes a study tour to rubber wood plantations and processing facilities, a market study, and a sawmilling feasibility study involving technical aspects and financial analysis.

The following activities have been completed:

1. Study tour to Malaysia and France;
2. Evaluation of rubber wood resources of participating countries (except Liberia);
3. Collection of financial information for financial analysis.

The activities have so far not included studies related to Liberia because of present difficulties in the country.

The market and technical studies are underway and when completed will allow financial issues to be examined. The pre-project study is expected to be completed by the end of January 1991.

(3) Development Work to Phase Out Trade on Unsustainably Produced Timber: I - Assessment of Future Mahogany Supply and Alternative Industrial Operations for Sustainable Production

Budget Requirement: \$337,400

The pre-project will carry out a preliminary assessment on the present situation and future prospects for the supply of Amazonian mahogany and explore alternative models for sustainable production. The pre-project study's immediate objectives are:

1. to analyze the mahogany supply and demand situation, both for local and export markets;
2. to identify alternative models of production, including economic, social and environmental aspects, as well as organizational arrangements and institutional issues;
3. to evaluate the pre-feasibility of the selected models;
4. to prepare project proposals for follow-up action.

The work proposed in the pre-project will assist governments, particularly the Government of Brazil, to plan conservation of national mahogany forests to ensure permanent and sustainable supply of mahogany timber while retaining the greatest possible value of the forests to local people, maintaining biodiversity and environmental conservation. The pre-project work will provide preliminary information that is essential to the planning process needed to design a major development and investment program on sustainable management and production to phase out unsustainable international trade of mahogany.

The study will fill a gap in availability of basic information on, among other important factors: the extent of mahogany forests in the Amazon basin; present status of mahogany production for the international and local markets and future prospects; assessment of pre-feasibility of sustainable production of mahogany through the establishment of national or state forests and their production potential and alternative ways to organizing their management; and pre-feasibility of management and harvesting systems minimizing site accessibility and environmental damage while optimizing forest production.

The pre-project study will be implemented by a conservation NGO from Brazil, FUNATURA. The work is expected to start early in 1991.

(4) Institutional Strengthening of IBAMA'S Forest Products Laboratory

Budget Requirement: \$56,000

This pre-project study will assist the planning of future research work of IBAMA's Forest Laboratory. The study will review the research and development activities of the Laboratory with a view to adjust and improve its capability. The study will consider that the Laboratory's future work will include the following priority areas:

1. studies and technological research, aiming at improving the knowledge of lesser-known wood species, expanding their commercialization and industrialization possibilities;
2. identification and selection of lesser-known species for industrial use, aiming at the sustainable production of the forest resources;
3. development and dissemination of technology to increase the utilization of woods for different uses.

The implementation of the pre-project study is under the responsibility of IBAMA. The work is expected to start early in 1991.

(5) Manpower Development of the Sarawak Forest Sector

Budget Requirement: \$151,184

This pre-project study will determine the present and future workload requirements of the Sarawak Forest Department and the technical training needs of the sector to assist in the development of manpower for the entire Sarawak timber industry, including both the public and private sectors.

The pre-project study is to be implemented as follow-up work addressing the recommendations of the ITTO Sarawak Mission, which concluded that manpower development is essential if the economic potential of the forest resources of Sarawak, its forest industries and other forest values are to be maintained.

The implementation of the pre-project study is under the responsibility of the Forest Department, State Government of Sarawak, Malaysia. The work is expected to start early in 1991.

#### 4.2 Projects

A total of 12 projects were reviewed and appraised by the Permanent Committee on Forest Industry in 1990. Following the Committee's recommendations, the Council approved for implementation the following projects:

1. PD 63/89 Rev.1 (I)    LOW-COST HOUSES FROM SMALL DIAMETER TREES, PLANTATION THINNINGS AND TREE TOPS AND BRANCHES
2. PD 80/90 (I)        SECOND CONSULTATION ON THE WOOD AND WOOD PRODUCTS INDUSTRY
3. PD 92/90 (I)        STUDY OF COSTS AND YIELD LEVELS IN THE BOLIVIAN SAWMILLING INDUSTRY
4. PD 93/90 (I)        INTRODUCTION OF LESSER KNOWN SPECIES IN THE AMAZON PLYWOOD INDUSTRY
5. PD 102/90 (I)       DEVELOPMENT OF WAFERBOARD PRODUCTS FROM POTENTIAL TROPICAL WOOD SPECIES FOR BUILDING PRE-FABRICATED HOUSES
6. PD 107/90 (I)       STRATEGIES FOR SUSTAINABLE WOOD INDUSTRIES IN SARAWAK
7. PD 108/90 (I)       FOREST INDUSTRY DEVELOPMENT STUDIES
8. PD 117/90 (M,F,I)    WORLD CONFERENCE OF SENIOR FORESTERS TO PROMOTE GLOBAL GREEN MANAGEMENT AND SUSTAINABLE UTILIZATION

The Committee recommended that 3 of the remaining proposals be revised in light of its appraisal comments, whilst recommending that the fourth proposal should not be further considered by ITTO.

In the field of Forest Industry the Council approved in the quadrennium 1987-1990 a total of 31 projects for implementation, though financing and allocation of funds were effected only for 24 projects as of December 1990. The scope and status of on-going projects as well as of 3 projects completed in 1990 are briefly reviewed in sections 4.2.1, 4.2.2, 4.2.3 and 4.2.4.

4.2.1 Projects Completed in 1990

- (1) PD 3.d/87 : Proposals for Actions in Favor of the Lesser Known Species : Measures in Support of the Lesser Known Species of Africa and Latin America/Caribbean

Source of Funding: ITTO

Budget: Total - \$242,000  
ITTO - \$242,000

Implementing Agency: Centre Technique Forestier Tropical (CTFT) and Association Technique Internationale des Bois Tropicaux (ATIBT)

Starting Date/Duration: February 1988/30 months

This project was implemented to improve the tropical timber trade and economy by increasing acceptance and commercialization of lesser-known species from African and Latin America/Caribbean regions. The promotion of lesser-known species was pursued by providing manufacturers in the producing and importing countries with literature and promotional materials covering processing, utilization and properties of selected lesser-known species. Technical Sheets describing 10 African and 10 Latin American/Caribbean species were published in December 1989. An Atlas providing full descriptions of 83 commercial tropical hardwood of Latin America/Caribbean was prepared and published during the first half of 1990. The Atlas text also includes information on nomenclature, color, density and use of 70 additional species from the two regions.

A large number of the printed Technical Sheets and Atlas have already been distributed by ITTO, CTFT and ATIBT to timber traders, industries, relevant government agencies and other interested organizations.

The table below summarizes dissemination of the documents by ITTO:

PUBLICATION	NO. OF COPIES RECEIVED			NO. OF COPIES DISTRIBUTED		
	English	French	Spanish	English	French	Spanish
Tropical Timber Atlas of Latin America	1300	1300	1300	1200	300	1200
Sets of Technical Sheets (Africa and Latin America/ Caribbean)	3500	3500	3500	3200	3200	3200

(2) PD 20/87 (I): Publication of Technical Documents and Relevant Information to the Forest Products Industry

Source of Funding: ITTO

Budget Total - \$98,000  
ITTO - \$98,000

Implementing Agency: ITTO

Starting Date/Duration: January 1988/30 months

Through this project selected documents in the field of Forest Industry were translated and published.

As specified in the project document the following documents were translated and published:

1. FAO Sawdoctoring Manual

French 1000 copies  
Portuguese 1000 copies

FAO kindly assisted with the captions for both the French and Portuguese versions. The translation and printing of a Spanish version, though planned in the project document, was not effected because FAO had undertaken the task with its own funds.

2. Handbook of Hardwood Timber Preservation

English 1000 copies  
Spanish 1000 copies  
Portuguese 1000 copies

The Centre Technique Forestier Tropical (France) kindly assisted with arrangements for translating and printing this manual.

3. FAO Asia Pacific Forest Industries Development Group: Quality Control in Primary Forest Industries

French	1000 copies
Spanish	1000 copies
Portuguese	1000 copies

4. FAO Asia Pacific Forest Industries Development Group: A Key to Production of Quality Veneer

French	1000 copies
Spanish	1000 copies
Portuguese	1000 copies

5. Amazonian Timbers for International Markets

English	3000 copies
---------	-------------

Over 5500 copies of the publications have been distributed to interested agencies and other users in ITTO Member countries.

(3) PD 44/88 (I): Seminar for the Promotion of Further Processing of Tropical Hardwood Timber in the African Region

Source of Funding: Japan

Budget: Total - \$154,400  
ITTO - \$154,400

Implementing Agency: ITTO and Ghana Timber Export Development Board

Starting Date/Duration: February 1989/12 months

This Seminar was organized jointly by ITTO and the Ghana Timber Export Development Board (GTEDB), and was held in Accra, Ghana, from 13 to 16 February 1990. A total of 171 participants from 20 countries and 5 international organizations attended the Seminar. The Seminar proceedings which include recommendations on future work to assist the development of further processing industries in Africa will be available from both ITTO and GTEDB early in 1991.



4.2.2 Projects under Implementation

- (1) PD 3.a/87 (I): Enhancing Locally the Value of Lesser Known Species (Manufacture of Blockboards from Lesser Known Species in Cameroon)

Source of Funding: Government of Japan

Budget: Total - \$239,000  
Government of Japan - \$159,000  
Government of Cameroon - \$ 80,000 (in kind)

Implementing Agency: Office National de Developpement des Forets  
(ONADEF)/Centre Technique Forestier Tropical  
(CTFT)

Starting Date/Duration: September 1990/12 months

This 12-month Project is to facilitate transfer to Cameroon technologies for processing raw materials from lesser-known species into a manufactured stable product (edge-glued panel).

A research center in Cameroon (ONADEF, formerly CENADEFOR), assisted by the "Centre Technique Forestier Tropical" (France) will be responsible for the Project development activities. Fifteen to twenty cubic meters of edge-glued panel will be manufactured, of which five cubic meters will be distributed to timber using industries and craftsmen to allow them to become familiar with the characteristics of the products. Additionally, the Project includes 2- to 3-day training session aimed at promoting and raising interest of the private sector in manufacturing and using edge-glued panels.

The contractual agreement and other arrangements for implementation were finalized in September 1990, with Project commencement immediately following.

- (2) PD 3.e/87 (I): Proposals for Actions in Favour of the Lesser Known Species: e. Creation of an International Research and Development Network

Source of Funding: ITTO

Budget: Total - \$255,000  
ITTO - \$255,000

Implementing Agency: ITTO and CTFT

Starting Date/Duration: February 1988 - 18 months

This Project has established a Data Bank Network covering initially technical and commercial information on 130 African and Latin American tropical timber species. The Data Bank also includes information on a limited number of species from Asia/Pacific.

The agencies participating in the Network are:

Africa

Cameroon	Center National de Developpement Des Forets
Congo	Center Technique Forestier Tropical
Côte d'Ivoire	Center Technique Forestier Tropical
Gabon	Direction de L'Industrie
Ghana	Forest Products Research Institute
Liberia	Forestry Development Authority

Latin America/Caribbean

Bolivia	Centro de Desarrollo Forestal
Brazil	Brazilian Institute for Environment and Renewable Natural Resources
Ecuador	Dirección Nacional Forestal Ministerio de Agricultura
Honduras	CODEFOR (Corporación Hondureña de Desarrollo Forestal)
Peru	Instituto Nacional Forestal y de Fauna
Trinidad and Tobago	Forestry Division- Ministry of Food Production Exploitation Forestry and the Environment

Project completion has been delayed as the Data Bank Network may not be operational yet in at least 5 countries (Gabon, Liberia, Bolivia, Trinidad and Tobago and Peru). The executing agency is carrying on contacts with the Network partners in these countries to overcome difficulties that are delaying full operation of the Network.

(3) PD 4/87 Rev.1 (I): Training in Planning and Management of Forest Industries in Developing Countries

Source of Funding: Finnish International Development Agency (FINNIDA)

Budget: Total - \$1,772,500  
FINNIDA - \$1,772,500

Implementing Agency: Forestry Training Program (FTP) with  
the assistance of FAO and ITTO

Starting Date/Duration: October 1989/4 1/2 years

This 4 1/2-year Project will design and implement - in Africa, Latin America/Caribbean and Asia/Pacific - training programs with the aim of increasing and improving the appropriateness and contribution of existing and new timber-based industries to regional and sub-regional development. The Project will: (1) survey the training materials and review the curricula of the existing training institutions specializing in forest industries; (2) prepare appropriate training materials and further training proposals necessary for forest industries planning, management and operation; (3) design and hold six seminars to improve the knowledge and skills of about 120 managers of forest industry enterprises and representatives of public agencies from producing regions; and (4) design and implement at national level six complementary and further training programs on training skills and planning and management of appropriate forest industries.

Implementation of the Project started in October 1989 with the recruitment of a Project manager. The implementation is progressing as scheduled, and planning and practical arrangements are being finalized to convene the first training workshop in Africa (Ghana), now scheduled for 8-18 January 1991. The second training workshop has been tentatively scheduled to be convened in April 1991 in Panama.

The preparatory phase of the Project has been completed, including the execution of the following activities:

- establishment of the expert network in participating countries;
- preparation of draft guidelines for planning and management of appropriate forest industries and methodology for their evaluation;
- identification and preliminary screening of potential trainees to attend the first workshop;
- inventory and review of existing training materials and course programs;

- survey and inventory of institutions/organizations involved in arrangement of training in forest industry;
- specification of training needs;
- identification and preliminary screening of potential teachers.

The basic training manual on Planning and Management of Forest Industries has been drafted and subjected to several revisions. The manual was made available to the Forest Industry Committee Members during the Seventh Session in November/December 1990.

(4) PD 11/87 (I): Malaysian Timber Industry Board and Timber Industry Upgrading

Source of Funding: Government of Japan

Budget: Total - \$345,000  
Government of Japan - \$345,000

Implementing Agency: Malaysian Timber Industry Board (MTIB)

Starting Date/Duration: January 1989/3 years

This 3-year project is implementing a training program for forest industries and government executives from Malaysia. The training program contemplates both short term courses in technical areas in the timber industry (marketing, furniture standards and design, feasibility studies, and so on) as well as formal education courses at graduate level, leading to university degrees in business administration.

The ongoing or completed training activities sponsored by the project include:

- diploma course on business studies (1 participant on-going);
- master's course on business administration (6 participant on-going);
- doctoral course on business administration (1 participant on-going);
- short term courses and conferences on export marketing and management (4 participants on-going).

The proposed program for 1991 comprises short term courses and on the job training for MTIB divisions as follows:

<u>Division/Unit</u>	<u>Training Subject</u>
Technical Division	Sawdoctoring; furniture production and technology
Marketing Division	Business administration; marketing and marketing planning
Planning and Development	Computerized accounting; structured system analysis; structured system design; internship at CINTRAFOR

Though the implementation of the training program is being accelerated to make up for delays earlier in the investigative project phase, the completion of the training program as proposed may require a project extension of 6 to 12 months, particularly as most trainees in the graduate program are pursuing academic degrees concurrently with their duties at MTIB.

Apart from the core training program, the project is contributing to computerization of MTIB operations with computer hardware, software and training of MTIB computer staff.

(5) PD 12/87 (I): Research on Utilization of Tropical Timber in Construction

Source of Funding: Government of Japan

Budget: Total - \$494,422  
Government of Japan - \$273,884  
FRIM contribution - \$220,538 (in kind)

Implementing Agency: The Forest Research Institute of Malaysia (FRIM)

Starting Date and Duration: October 1990/5 years

This project consists of a research program in timber housing construction to be carried out by the Forest Research Institute of Malaysia, to increase and improve the utilization of timber in housing and building construction in the country. Research emphasis is on timber use and performance in load bearing applications, and expected outputs include several technical papers, manuals and design guides.

/...



Implementing Agency: Agricultural University, Wageningen,  
The Netherlands and TNO Timber Research  
Institute, Delft, The Netherlands

Starting Date/Duration: April 1989/18 months

This project will be completed early in 1991 and has produced a computer-based analytical system that allows for the matching of twenty-one technological properties of timber species with several criteria for end-uses, including windows, window frames, outside doors and flooring. Introduction of the properties of a timber species into the computer system provides immediate insight into its applicability for a specified end-use, both at a preferred and at a minimum level. If a timber species does not meet certain requirements, the system may indicate steps that can be taken to improve its potential applicability for a specified end-use. The program is user-friendly and, since it is contained on a single 3.5 inch floppy disk, can be used on any IBM/PC-compatible computer systems.

Work to further develop the computer program and expand its information base is being planned. In the subsequent project phases producers of tropical timber will be provided with information about the markets to which these lesser-known tropical timber species may be introduced. The end-user, on the other hand, will obtain information about specific properties of these lesser-known species, most notably their physical, mechanical, technical and aesthetic characteristics. They will also be provided with insights into the quantities in which the timber is available and the conditions under which it can be marketed (in particular, quality, size and delivery conditions). Both producers and consumers will get information about current market prices of tropical and other timbers, since this will determine the price at which unknown species can be introduced to the market. Other elements that will be the subject of future work are transportation conditions and costs, customs formalities, and the identification of trading partners who may have an interest in the lesser-known species.

(8) PD 37/87 Rev.3 (I): Industrial Use of new Forest Species in Peru

Source of Funding: Government of Japan

Budget:	Total	- Phase I	\$829,250	Phase II	\$841,750
	Gov't of Japan	- Phase I	\$448,750	Phase II	\$461,250
	Gov't of Peru	- Phase I	\$380,500 (in kind)		
		- Phase II	\$380,500 (in kind)		

Implementing Agency: General Directorate of Forests and  
Wildlife of the Ministry of Agriculture  
and Camara Nacional Forestal

Starting Date/Duration: April 1990/2 years

This 2-year project involves formulation and implementation of an applied research program to promote industrialization and commercial introduction of 20 lesser known timber species found in Peru. Species, for which basic technical information already exists will be processed and tested in seven wood industries in the departments of Lima, Loreto and Ucayali. Products manufactured on a trial basis will be promoted and introduced in the domestic and international markets. Industrial research will concentrate on sawmilling, wood drying and preservation, veneer and plywood manufacturing, posts, sleepers, wood-cement boards, parquet, moulding, furniture and housing components. The program will contribute to technology transfer to processing mills in Peru and manpower development through training of national counterparts, and through several courses and seminars to be attended by at least 300 participants at management and technical levels. Upon completion of the industrial research, market development, and training programs, the wood industries of Pucallpa, Iquitos and Lima are expected to have 20 percent of their wood raw materials supplied by the 20 species studied and introduced through this project. Under Phase I (first year), species, for which basic technical information already exists, are being processed and tested in wood industries in the departments of Lima, Loreto and Ucayali. In this phase sawmilling products manufactured on a trial basis will be promoted and introduced in the domestic and international markets. Industrial research is concentrating on sawmilling, wood drying and preservation, posts, sleepers, parquet, and moulding.

The consultancy work to prepare a detailed work plan was finalized in June 1990. The actual industrial research program was initiated in July 1990. As of September 1990 the following activities had been completed:

/...



- (i) Selection of seventeen species to be investigated in the program;
- (ii) Preparation of detailed work plans for timber harvesting, industrial research and marketing promotion;
- (iii) Harvesting and processing 459 m<sup>3</sup> of logs of ten species in the Pucallpa region. Yield and productivity data were collected when sawing these logs into lumber products which will be subjected to further industrial tests and commercial promotion.

The commercial promotion activities will be carried out through a center for the promotion of timber products now being planned by the project staff. Marketing efforts both domestically and abroad (Europe, Japan and North America) are expected to be initiated early in 1991.

- (9) PD 41/88 (I): The Identification, Properties and Uses of the Tropical Timber Imported to China from Southeast Asia

Source of Funding: Government of Japan

Budget: Total - \$53,800  
Government of Japan - \$33,000  
Government of China - \$20,800 (in kind)

Implementing Agency: Research Institute of Wood Industry,  
Chinese Academy of Forestry (CRIWI)

Starting Date/Duration: March 1989/1 1/2 years

This Project is generating technical and promotional material to assist Chinese importers and users to properly identify, process and utilize tropical timbers from Southeast Asia. The technical literature on Asian tropical timbers has been reviewed and technical data on 186 Asian species has been stored in computers for utilization by interested parties in China. The Project is the first phase of a comprehensive program that includes the study of species from Africa and Latin America/Caribbean.

Project staff members have visited research and industry agencies in Malaysia for literature review and collection of samples, and the Centre Technique Forestier (France) to harmonize the computer work with the Data Bank Network established under ITTO project PD 3.e/87 (I). The project is expected to be completed in early 1991.

- (10) PD 54/89 (I): Study on Utilization Structure of Tropical Timber Products in Korea and Promotion of Processed Wood Products Supply from Tropical Timber Producing Countries

Source of Funding: Government of Japan

Budget: Total - \$123,000  
Government of Japan - \$ 73,000  
Government of ROK - \$ 50,000 (in kind)

Implementing Agency: Korean Forest Research Institute

Starting Date/Duration: September 1990/2 years

This two-year Project will investigate the Korean market for tropical timber and review the country's import and utilization trends. The study will concentrate on the furniture and musical instrument industries and will provide the basis for promoting imports of semi-processed and processed timber products for these industries. To this effect, the Project will survey and assess the potential of selected producing countries from Africa, Asia/Pacific and Latin America/Caribbean to supply higher added value parts and components to be used in production lines of furniture and musical instrument mills in the Republic of Korea. The Project will also produce valuable information on comparative production advantages and on investment opportunities in further processing enterprises in selected ITTO producing Member countries.

The contractual arrangements for implementation of the project were finalized in June 1990. As per the Committee recommendation, the implementation contract extended the project activities to include also:

- The preparation of a report on selected cases of successful joint ventures involving Korean partnership in downstream processing industries in producing countries;
- The dissemination of the project findings within the Korean private sector through publications and meetings;
- The preparation of recommendations on future action needed to facilitate and increase Korean use of tropical timber processed products manufactured in producing countries.

A comprehensive work plan has been prepared detailing methods and procedures, personnel inputs, budget and time schedule for implementation of activities and sub-activities.

/...

(11) PD 60/89 (M,F,I): Fellowship and Related Assistance Program to Promote Tropical Forest Sector Development

Source of Funding: Government of the Netherlands and Government of Japan

Budget: Total - \$708,214.62  
Government of Japan - \$454,000.00  
Government of the Netherlands - \$254,214.62

Implementing Agency: ITTO with assistance of FAO, UNIDO and JICA

Starting Date/Duration: 1989/2 years

This fellowship and small grants program is providing funds for:

- (a) Fellowships to support short-term activities to increase technological knowledge and research and development expertise of technical personnel from ITTO's producing Member countries. These activities will primarily include visits and short-term on the job training in demonstration forests, factories, workshops and research institutions, participation at seminars, conferences, and short-term courses;
- (b) Grants to finance short-term technical assistance to producing countries in the form of advisory services and information exchange;
- (c) Grants to finance preparation of technical documents under author's contracts to effect transfer of technology or technical information of importance for the development and upgrading of manpower in the forestry sector in producing countries.

Funds for Project implementation were made available in July 1989. In July and August 1989 a Fellowship Announcement containing information on the program and application instructions was widely distributed to Member countries, relevant technical agencies and industry and trade associations as well as other potential beneficiaries. A fellowship poster announcing the program was also prepared and widely distributed in the member countries in July 1990.

In 1989, 58 fellowship applications were received seeking support from the Project, of which 36 were approved involving allocation of funds amounting to \$189,967. In 1990 the number of applications submitted increased to 89, of which 39 were approved with \$277,924 allocated to finance them.

Consultations with FAO, UNIDO and JICA with a view to secure their assistance to implement the training component of the Project were successfully finalized. An agreement was signed with FAO to cover its assistance on the operationalization of the program.

On the basis of analysis of the growing demand for fellowships and small grants under this project and recognizing the importance of the project to promote tropical forestry development through training, information exchange and technology transfer, the Committee recommended and the Council approved the project extension for an additional period of 12 months, with a supplementary allocation of about \$400,000, which was approved by the Council and pledged by the Governments of Japan and the Netherlands.

(12) PD 70/89 Rev.2 (I): World Conference on Tropical Plywood in Asia Pacific Region

Source of Funding: Government of Japan and Japan Plywood Manufacturers Association

Budget:	Total	- \$205,000
	Government of Japan	- \$175,000
	JPMA	- \$ 30,000

Implementing Agency: ITTO and JPMA

Starting Date/Duration: April 1990/8 months

This Project will organize and convene a conference on tropical plywood. The Conference will be a forum for exchange of information, consultation and cooperation between tropical plywood producers and consumers. The Conference will focus on: (1) sustainability of resources; (2) technology transfer; (3) processing and quality improvement; (4) waste reduction; (5) standardization; and (6) improvement of statistics. Several technical papers addressing these topics will be commissioned and prepared prior to the Conference.

Funds were earmarked and made available to the Project in late March 1990. The Secretariat has initiated consultations with the co-implementing agency (JPMA) and with the Japanese Government in order to commence the Project and to form the Steering Committee that will oversee the organization of the Conference.

A preliminary proposal on the conference program has been prepared and discussed by the Permanent Committee on Forest Industry during its Seventh Session in November/December 1991. The Conference has been tentatively scheduled for October 1991.

(13) PD 73/89 (M,F,I): Assistance for Project Identification and Formulation

Source of Funding: Government of Japan and Government of Denmark

Budget: Total - \$546,900  
Government of Japan - \$346,900  
Government of Denmark - \$200,000

Implementing Agency: ITTO

Starting Date/Duration: April 1990/1 year

This one-year project is designing and implementing training activities to improve capability of producing countries to identify, design and formulate appropriate tropical forestry development projects. The training activities include: (1) the preparation of training materials on project design and formulation; (2) the organization and convening of 4 training workshops on planning and formulation of appropriate projects (2 in Africa and one each in Asia/Pacific and Latin America/Caribbean); and (3) missions to be undertaken to producing countries that request assistance for formulation of specific projects.

In view of the need to extend the duration of the training workshops beyond the one-week period originally planned the Committee decided to recommend for the present the organization of 2 workshops.

The secretariat has finalized consultations with the Economic Development Institute of the World Bank which will prepare training materials and organize the workshops. The first two workshops will be convened in Thailand (February/March 1991) and in an African country (June/July 1991).

Two countries (Papua New Guinea and Ecuador) have requested ITTO to organize missions to assist in the preparation of specific projects. A

/...

consultant was assigned to Ecuador in December 1990 to assist the country to formulate project proposals. The mission to Papua New Guinea has been scheduled to January/February 1991. Experts provided by Australia, Japan, Germany and UNESCO will be joining ITTO in this mission to assist the Government of Papua New Guinea.

On the basis of a Danish proposal endorsed by the Permanent Committee on Forest Industry, the Council expanded and strengthened the project activities by accepting a contribution of \$200,000 for purposes of assisting producing Member countries to identify and formulate appropriate project proposals through Danish consultancy services.

#### 4.2.3 Projects Under Preparation for Implementation

##### 4.2.3.1 Projects Pending Finalization of Contractual Agreements

- (1) PD 63/89 Rev.1 (I): Low-Cost Houses from Small Diameter Trees, Plantation Thinnings and Tree Tops and Branches

Source of Funding: Government of Japan and Government of the Netherlands

Budget:	Total	- \$2,465,005.23
	Government of Japan	- \$ 563,654
	Government of the Netherlands	- \$ 236,351.23
	Government of the Philippines	- \$1,665,000 (in kind)

Implementing Agency: Forest Products Research and Development Institute (FPRDI)

Starting Date/Duration: February 1991 (planned)/3 years

This 3-year project will carry out a research and development program to improve processing of logging residues and silvicultural thinnings and their utilization as housing materials. The project will study low capital and labor intensive technologies to allow the use of these raw materials for manufacturing lumber, finger-jointed pieces, plywood and wood cement/gypsum boards to be used in suitably designed low-cost houses. Appropriate drying and preservation techniques for the construction materials proposed will also be investigated.

Model houses will be built with the construction materials investigated and produced. Feasibility study on the establishment of small scale community-based enterprises and assessment of socio-economic benefits will follow and complete the program.

Selected logging and wood processing companies will assist FPRDI in the project implementation. The Department of Environment and Natural Resources (DENR) will coordinate relevant activities during the pre-implementation and post implementation phases of the project, including the formulation of policies and guidelines on the utilization of small diameter trees at community enterprise level.

Finalization of contractual agreement for implementation is expected to be made by the end of January 1991 with project commencement planned for February 1991.

(2) PD 93/90 (I): Introduction of Lesser-Known Species in the Amazon Plywood Industry

Source of Funding: Government of Japan

Budget: Total - \$254,540  
Government of Japan - \$254,540

Implementing Agency: Brazilian Association of Plywood Industries - ABIMCE

Starting Date/Duration: March 1991 (planned)/24 months

This 24-month project will implement an industrial trial to promote use of lesser-known species in the plywood industry, mainly as core veneers. Species from both low-land ("varzeas") and high-land forests will be tested on an industrial scale in two plywood mills. The trial panels will be analyzed and compared with commercial ones. The physical and mechanical properties and other quality aspects will be assessed in laboratories of existing research institutes. The work will also include an economic evaluation of the feasibility of using lesser-known species for veneer and plywood manufacturing.

The result of the project will be a list of lesser-known species which can be used as core veneer in the Amazonian plywood industry. The

/...

list will be published with a report on the properties of tested plywood panels and the results of the feasibility study.

(3) PD 102/90 (I): Development of Waferboard Products from Potential Tropical Wood Species for Building Pre-Fabricated Houses

Source of Funding: Government of Japan

Budget: Total - \$371,858.02  
Government of Japan - \$ 72,480.02  
INPA Contribution - \$299,378.00 (in kind)

Implementing Agency: Amazonia National Research Institute -  
INPA and Forest Products Department -  
DPF

Starting Date/Duration: March 1991 (planned)/18 months

This 18-month project will implement a research program on the utilization of Amazonian tropical species for manufacturing waferboard for construction use. Board will be experimentally produced with three different species. Variables that will be studied are resin content and pressing time. The boards' strength and dimensional stability properties will be analyzed. The experimental boards manufactured under the optimum condition will be used as wall and flooring materials in a prototype house where they will be compared with commercial plywood panels.

(4) PD 108/90 (I): Forest Industry Development Studies

Source of Funding: Government of Japan

Budget: Total - \$535,000  
Government of Japan - \$475,000  
Government of the PNG - \$60,000 (in kind)

Implementing Agency: Department of Forest, Papua New Guinea

Starting Date/Duration: 2 years

This 2-year project will implement forest industry development studies with a view to assess the possibilities of increasing socio-economic benefits through establishing appropriate forest industries in Papua New Guinea. The project will survey the existing timber industries of PNG and follow-up with a forest industry development plan. This plan will include the implementation of pre-industrial surveys and pre-



feasibility studies for the establishment of an integrated sawmill and wood based panel plant, an export wood chipping mill, and a pulp mill. The planned studies will also consider the potential for development of non-wood products such as rattan, orchids and shiitake mushrooms.

- (5) PD 117/90 (M,F,I): World Conference of Senior Foresters to Promote Global Green Management and Sustainable Utilization

Source of Funding: Government of Japan

Budget: Total - \$400,000  
Government of Japan - \$400,000

Implementing Agency: ITTO and Forestry Agency of Japan

Starting Date/Duration: December 1990/1 year

The objective of this project is to promote the adoption and application of sustainable management of tropical forests as stated in the ITTO Guidelines approved in the 7th ITTC Session. This project is to provide a forum of Senior Foresters and forestry related experts with technical experience with a view to securing inputs from field experts who have worked in actual forest situations. This forum would offer an opportunity for them to discuss how to implement ITTO Guideline in a manner best suited to regional and local conditions, including looking at possibilities of involving the industry in the application of the Guidelines.

Based on the discussion in the forum, recommendations would be sought from the viewpoint of field experts for practical actions in the development and application of national guidelines for sustainable management of tropical forests.

#### 4.2.3.2 Approved Projects Pending Financing

- (1) PD 43/88 Rev.2 (I): Study for the Marketing of Tropical Timber and Promotion of the Consumption of Less Well Known Species on International Markets: Phase I - Promotion for Selected Asian Markets

Source of Funding: Project awaiting financing

/...

Budget: Total - \$920,000  
ITTO - \$920,000

Implementing Agency: ITTO and Brazilian Institute for  
Environment and Renewable Natural  
Resources (IBAMA)

Starting Date/Duration: 2 years

The project will assess the problems affecting the marketing of Latin American/Caribbean timbers in selected Asian markets and carry out a promotion program to increase the trade between the two regions.

The project has two main parts. The first part will: (1) review the timber market in selected Asian countries and assess the potential of Latin American/Caribbean timbers in selected market outlets; (2) compile technical information on species that potentially meet requirements of these markets, including those requirements of commercial importance such as adequate volumes and competitive prices; and (3) design and hold six seminars to promote the selected timbers in the main market outlets identified and in the producing regions to promote the production and trade. The second part of the project will implement an operational import and marketing program with the objective of actually trading limited trial volumes covering at least 40 lesser-known species described and promoted under the first part of the project.

(2) PD 48/88 Rev.1 (I): Drying Mixtures of Tropical Hardwoods

Source of Funding: Project awaiting financing

Budget: Total - \$475,757  
ITTO - \$475,757

Implementing Agency: United States Department of  
Agriculture, Forest Service, Forest  
Products Laboratory in cooperation with  
one cooperating institution from each  
producing region.

Starting Date/Duration: 5 years

The project will carry out research activities to develop the basis of a grouping system that can deal effectively with drying mixtures of tropical hardwoods species that have a wide range of characteristics.

The grouping systems will be developed by correlating specific gravity and initial moisture content with drying time and then grouping together species of similar estimated drying times.

In order to establish the necessary experimental and analytical techniques, experimental work will first be carried out by using US species in the US Forest Products Laboratory. In this phase (24 months) one researcher from each of the three producing regions (Africa, Asia and Latin America/Caribbean) will be trained in these techniques to subsequently conduct similar studies in research institutions in their home countries. This second project phase is expected to take 30 months and will test the model and technology with a few dozen tropical hardwood species.

This project follows recommendations that have arisen from an ITTO-funded pre-project study on Seasoning Mixed Species of Tropical Hardwood. The study concluded and recommended that more research is needed to develop effective methods for grouping species, while highlighting that basic specific gravity, initial moisture content and shrinkage are the prime wood properties to be considered when attempting to group different wood species for mixed drying.

(3) PD 49/89 (I): Creation of International Promotion Center for Lesser Known Species in Europe

Source of Funding: Project awaiting financing

Budget:	Total	- \$96,000 (preparatory phase only)
	ITTO contribution	- \$96,000
	CTFT contribution	- In kind

Implementing Agency: CTFT

Starting Date/Duration: 2 years

This project will establish and operate a permanent Promotion Center for the introduction of approximately 30 to 50 lesser-known species (LKS) in the European market. The Center will have a timber yard and trading office in the harbor of Antwerp (Belgium) where trial volumes of lesser-known species would be stocked, promoted and traded. These operational activities will be preceded by a 6- to 10-month preparatory phase designed to inform producing countries in the three regions and to

/...

secure their inputs and participation. (So far, only the preparatory phase has been approved by the Council.)

(4) PD 65/89 (I): Promotion of Imports of Tropical Sawwood in China (preparatory phase)

Source of Funding: Project awaiting financing

Budget: Total - \$107,000 plus Government China's contribution in kind  
ITTO contribution - \$107,000  
Government of China - in kind

Implementing Agency: Research Institute of Wood Industry  
Chinese Academy of Forestry (CRIWI)

Starting Date/Duration: 3 years

This three-year project will establish and operate a promotion center for the introduction of sawwood of 40 lesser-known species to major industrial timber users in China. The establishment of the center will be preceded by an assessment of its feasibility and survey of major Chinese consumers to determine their willingness to participate in the program. In this preparatory phase, Latin American/Caribbean, African and Asian producing countries and exporters will also be approached to secure their collaboration and inputs. (So far, only the preparatory phase has been approved by the Council).

(5) PD 67/89 (I): Training Program on Mechanical Processing Operations in the South American Sawmilling and Plywood Industries (Phases I and II)

Source of Funding: Project awaiting financing

Budget: Total - \$2,443,000  
ITTO contribution - \$ 953,000 (Phase I)  
- \$1,000,000 (Phase II)  
INPA contribution - \$ 490,000 (in kind)

Implementing Agency: INPA (Brazil) and International Agency (to be selected), with assistance of Forestry/Training agencies of Bolivia, Ecuador and Peru

Starting Date/Duration: 4 years

This four-year Project will design and implement in South America a training program on sawmilling and veneer and plywood manufacturing techniques. A total of 460 technicians from Bolivia, Brazil, Ecuador and Peru are expected to attend a series of 20 courses covering: (i) sawmilling techniques, (ii) saw doctoring and maintenance, (iii) lathe and slicer operation, and (iv) modern plywood manufacturing operations. Trainees of all participating countries will attend the first eight courses covering the four subjects. Courses will initially be given in the wood industry research facilities of the National Institute for Amazonian Research, with project experts assisted by local staff. After testing and refining training materials and curricula, the training courses will be offered also in the other 3 participating countries, provided appropriate facilities are made available.

These direct project training activities are expected to alleviate acute shortage of skilled workers, technicians and supervisors in mechanical processing industries, and to establish the basis for the regular and continuous offer of training courses for the wood industry in South America on a national level in at least two countries, and possibly in all four participating countries.

(6) PD 80/90 (I): Second Consultation on the Wood and Wood Products Industry

Source of Funding: Project awaiting financing

Budget: Total - \$304,000  
ITTO contribution - \$243,000

Implementing Agency: ITTO with UNIDO assistance

Starting Date/Duration: 6 months

The project was designed to support participation of experts from ITTO producing countries in the Second Consultation on the Wood and Wood Products Industry. The Consultation is within the program of the UNIDO System of Consultations which has been set up as an action-oriented forum for developing and developed countries cooperating to accelerate industrialization in the former countries through an in depth analysis of specific industrial sectors.

The Second Consultation will focus on the secondary wood processing industry. Malaysia had been proposed as host country, but because of inadequate funding, the Consultation was rescheduled to be held in Vienna on 21-25 January 1991.

Out of the total budget under ITTO responsibility (\$243,000) the amount of \$107,000 was no longer needed as it was to be contributed by ITTO to assist UNIDO to hold the Consultation in Kuala Lumpur, Malaysia.

(7) PD 92/90 (I): Study of Costs and Yield Levels in the Bolivian Sawmilling Industry

Source of Funding: Project awaiting financing

Budget:	Total	- \$221,821
	ITTO contribution	- \$165,171
	Government of Bolivia	- \$ 57,650 (in kind)

Implementing Agency: Centro de Desarrollo Forestal

Starting Date/Duration: 1 year

This one-year project will study production costs, productivity, profitability and sawnwood yield in sawmilling operations in Bolivia. Sawnwood yield studies will be carried out for 18 tropical commercial species of six Bolivian provinces.

The economic assessment and studies will improve transparency on sawmilling activities and contribute to overall improvement of mill productivity and profitability and to conservation of tropical resources through higher processing efficiency.

(8) PD 107/90 (I): Strategies for Sustainable Wood Industries in Sarawak

Source of Funding: Project awaiting financing

Budget:	Total	- \$497,371
	ITTO contribution	- \$440,550
	State Government of Sarawak	- \$ 56,821 (in kind)

Implementing Agency: Ministry of Resource Planning, State Government of Malaysia (through the Forest Department and the Sarawak Timber Industry Development Corporation)

Starting Date/Duration: March 1991 (planned)/13 months

This 13-month project will prepare a sector plan for the development of forest industries of Sarawak. The project will develop the proposed plan through the following steps:

- a) review and update market studies;
- b) determine the current (and currently proposed) capacity of the wood processing industry;
- c) determine forest management units and assess their production potential;
- d) determine the product mix which will optimize the economic return to the country and to the State;
- e) recommend changes to enable the forest sector to produce the optimum product mix.

#### 4.3 Other Activities

##### 4.3.1 Action Plan and Work Program in the Field of Forest Industry

The Seventh Session of the Council, acting upon recommendations by the Permanent Committee, decided to establish and finance a Panel of Experts to develop a Draft Action Plan and Work Program in the field of Forest Industry. The Panel met in March 1990 and prepared a Draft Work Plan which was submitted to the Permanent Committee and Council in their respectively Sixth and Eighth Sessions in May 1990.

After thoroughly considering the revised version of the Draft Action Plan and Work Program in the field of Forest Industry, the Council approved a revised document as recommended by the Permanent Committee on Forest Industry. The full text of the Action Plan and Work Program in the field of Forest Industry is reproduced in ITTO document ITTC(VIII)/D.1 and is available from ITTO headquarters. The contents of the document were also integrated with the Action Plans and Work Programs of ITTO in the fields of Reforestation and Forest Management and Economic Information and Market Intelligence, resulting in the ITTO comprehensive Action Plan and Work Program (ITTO document ITTC IX/6 Rev.1), which was approved by the Council at its Ninth Session.

In order to implement the Action Plan, the Permanent Committee on Forest Industry considered and recommended to the Council the approval of a Work Program for 1991 as contained in ITTO document ITTC(IX)/5. In its Ninth Session in November/December 1990 the Council allocated funds to partially finance the recommended Work Program for 1991.

#### 4.3.2 Market Review and Outlook

In 1988 the ITTO decided to institute annual market and industry discussions to provide the opportunity for a broad exchange of views among its Members, trade and industry associations and conservation NGOs and strengthen the role of the Council in its work of monitoring and reviewing the tropical timber situation in accordance with Article 28 of the ITTA.

The main theme of the 1990 market review and outlook was the Development of Value Added Processing of Tropical Timber Products in the Asia Pacific Region. The structure of the 1990 Market Review is outlined in Section 2.3.2.

The analysis of the market developments and topics raised by participants is summed up in the Market Statement which was considered and approved by the ITTC at its Eighth Session and released to the Press. The 1990 Market Statement is reproduced in Annex III of this report.



## ANNEX I

STATUS OF MEMBERS AS AT 31 DECEMBER 1990

<u>Member</u>	<u>Provisional Signature</u>	<u>Provisional application</u>	<u>Ratification, accession (a), acceptance (A), approval (AA)</u>
Australia .....			16 Feb 1988
Austria .....			6 Mar 1986 (a)
Belgium/Luxembourg .....	29 Jun 1984	28 Sep 1984	21 Feb 1986
Bolivia .....	1 Nov 1984	25 Jun 1985	
Brazil .....	31 Mar 1985	31 Mar 1985	
Cameroon .....	15 Apr 1985	14 Jun 1985	19 Nov 1985
Canada .....			21 May 1986 (a)
China .....			2 Jul 1986 (a)
Colombia .....			27 Mar 1990 (a)
Congo .....	7 Mar 1985		28 Mar 1985
Côte d'Ivoire .....	27 Mar 1985	27 Mar 1985	
Denmark .....	29 Jun 1984		28 Sep 1984
Ecuador .....	31 Mar 1985	31 Mar 1985	19 Jan 1988
Egypt .....	31 Mar 1985	31 Mar 1985	16 Jan 1986
European Economic Community .....	29 Jun 1984	29 Mar 1985	
Finland .....	10 May 1984		13 Feb 1985
France .....	29 Jun 1984	29 Jun 1984	6 Aug 1985 (AA)
Gabon .....	26 Sep 1984	19 Mar 1985	18 Nov 1988
Germany .....	29 Jun 1984	29 Jun 1984	21 Mar 1986
Ghana .....	29 Mar 1985		29 Mar 1985
Greece .....	29 Jun 1984	28 Nov 1984	26 Jul 1988
Honduras .....	27 Sep 1984	29 Mar 1985	
India .....			19 Feb 1986 (a)
Indonesia .....	13 Jun 1984		9 Oct 1984
Ireland .....	29 Jun 1984		4 Oct 1984
Italy .....	29 Jun 1984		29 Mar 1985
Japan .....	28 Mar 1984		28 Jun 1984 (A)
Liberia .....	8 Mar 1984		29 Mar 1985
Malaysia .....	14 Dec 1984		14 Dec 1984
Nepal .....			3 Jul 1990 (a)
Netherlands .....	29 Jun 1984	20 Sep 1984	29 May 1987 (A)
Norway .....	23 Mar 1984		21 Aug 1984
Panama .....			3 Mar 1989 (a)
Papua New Guinea .....			27 Nov 1986 (a)
Peru .....	31 Mar 1985	31 Mar 1985	
Philippines .....	31 Mar 1985	31 Mar 1985	
Portugal .....			3 Jul 1989 (a)
Republic of Korea .....			25 Jun 1986 (a)
Spain .....	27 Feb 1985	24 Apr 1985	1 Apr 1986
Sweden .....	23 Mar 1984		9 Nov 1984
Switzerland .....	30 Apr 1985		9 May 1985
Thailand .....			9 Oct 1985 (a)
Togo .....			8 May 1990 (a)
Trinidad & Tobago .....	29 Apr 1985		9 May 1986
Union of Soviet Socialist Republics .....	28 Mar 1985		20 May 1985 (A)
United Kingdom .....	29 Jun 1984		18 Sep 1984
United States of America .....	6 Apr 1985	26 Apr 1985	25 May 1990 (A)
Zaire .....			20 Nov 1990 (a)

/...

ANNEX II

DECISION 3(IX)

THE PROMOTION OF SUSTAINABLE FOREST MANAGEMENT:  
A CASE STUDY IN SARAWAK, MALAYSIA

The International Tropical Timber Council (ITTC),

Recalling its Resolution 1(VI) and Decision 3(VIII),

Bearing in mind the commitment of Members to sustainable forest development within the framework of the International Tropical Timber Agreement, 1983 (ITTA), the Year 2000 target for sustainable forest management and the principles embodied in the ITTO guidelines for sustainable management of natural tropical forests,

1. Reiterates its commitment to promote sustainable management of tropical forests and the sustainable production of and trade in tropical timbers;
2. Recognizes that producer countries with substantial forest resources, in order to achieve sustainable development, will need to utilize such resources and to convert part of the land for agriculture and other uses;
3. Recognizes that if selective harvesting of timber from natural forests is sustained, it will not lead to deforestation or loss of forest cover;
4. Respects the sovereignty of all ITTO Member Countries;
5. Notes the main findings of the ITTO Mission Report as contained in document ITTC(VIII)/7, inter alia:
  - (a) that sustainable forestry in Sarawak can be achieved and is being partly achieved,
  - (b) that whereas forest management in Sarawak, is without doubt, of a higher standard than it is in most tropical timber producing countries and in some developed countries, the present rate of cutting is not fully sustainable,
  - (c) that in order to sustain the socio-economic and other benefits to be derived from natural forests in Sarawak, the report recommended that there will be the need to:
    - i) increase the staff and upgrade skills of the Forest Department and the timber industry,
    - ii) reduce the current rate of harvesting,
    - iii) improve the management of watersheds,
    - iv) increase the areas for bio-diversity conservation,
    - v) upgrade the standards of logging, and
    - vi) support research in forest management;

6. Fully appreciates the commitment by Malaysia to sustainable forest management and conservation, and welcomes the action plans and proposals to so manage the forest resources in Sarawak, which include:

- (a) a reduction of the annual cutting rate to achieve the sustainable yield,
- (b) the continuing commitment of the Sarawak State Government to seriously consider the interests of all communities in its planning and implementation of development programmes and to enhance local participation in the forest industries,
- (c) reserving two areas of natural forests for the Penan community,
- (d) the expansion of the Permanent Forest Estate (PFE) by about 1.5 million ha. and acceleration of the process for its establishment,
- (e) the increase in the extent of Totally Protected Areas (TPA) by about 0.75 million ha. to effectively conserve bio-diversity,
- (f) plans to improve watershed management,
- (g) the strengthening of the Forest Department of Sarawak, and
- (h) the submission of projects to ITTO for assistance to strengthen sustainable forest management and conservation, including the establishment of a model forest management area;

7. Decides to:

- (a) accept the findings of the Sarawak Report,
- (b) support the Government of Malaysia and the State of Sarawak to continue to develop and implement comprehensive planning processes based on sustainable forest management, conservation and socio-economic development; including, among others, the management of a Permanent Forest Estate comprising both production and protection forests, a network of Totally Protected Areas for conservation of bio-diversity and plantation development on deforested and degraded lands,
- (c) support the Government of Malaysia in the continued development of national forest policies and guidelines for sustainable forest management,
- (d) call for international co-operation to fully support and assist the Government of Malaysia's and the State of Sarawak's commitment to implement the recommendations of the Sarawak Report, and
- (e) appeal to all Members and all relevant international and non-governmental organizations to use their best endeavours to co-operate with and support the Government of Malaysia and the State of Sarawak in their efforts to achieve sustainable management and conservation of their forest resources.

ANNEX III

GENERAL TROPICAL TIMBER MARKET STATEMENT, 1990

1. The sound quantitative data base which was established by ITTO shows little change from previous years in that they represent about 94% of total net exports of member nations and about 91% of total world exports.
2. The annual value of international trade in tropical wood products (logs-sawnwood-plywood-veneer-added value products) has increased to over \$7 billion in 1989 about 10.5% increase over the previous record of \$6.4 billion in 1987. Net reduction in the volume of logs traded has been offset by an increase in volumes of sawnwood-plywood-veneer and additionally by more added value goods with higher unit selling prices.
3. Tropical hardwood log exports which reached a recent high of 28.9 million cubic meters in 1978 had fallen to 22.9 million cubic meters in 1988, but actually fell to 20.5 million m3 in 1989 compared to the previous forecast of 24 million m3.

Producers of tropical sawn-hardwood exports which had risen by 2.4% in 1988 also showed a small increase of 1% to 9.42 million m3 against a forecast of 10 million m3. 1990 is forecast to show similar figures.

The previous report for 1989 tropical plywood gave a total of 7.5 million m3 for 1988 from incomplete figures. This was subsequently amended to 8.79 million m3 for that year increasing by 14% to 10 million m3 in 1989 with a similar figure forecast for 1990.

4. The trend continues to reflect more clearly the rapidly increasing desire by most producing countries to obtain higher values for their forest products thus providing additional and improved employment prospects and conditions, and an additional earning capacity for more of their people. This trend is particularly noticeable in the Asia/Pacific region where planned development is proceeding apace.

An excellent example of this would be Papua New Guinea who intend to replace lost revenue by developing its vast forest resources with greater on-shore processing. This will provide a valuable addition to the resources in Asia/Pacific region in certain species.

5. This pattern will continue both in the short and long-term as other regions follow the same pattern of development as Asia/Pacific. Endeavors are being made to take the processes further into more sophisticated products and the technological advances enable more progress to be made. Whilst producer countries welcome this change in technological advance, it is essential that training to produce the quality required is provided, likewise more sophisticated marketing techniques will be necessary to balance supply to demand.

In some consuming countries a greater diversity is developing to small quantity custom produced goods to meet the changing pattern of supply and demand.

/...

6. Whilst the short term market trends show a slight upward movement from the plateau established, there is a change in individual country consumption with demand pattern changes being more marked than in recent years. The market for semi-processed goods is different from the previous pattern for logs and sawnwood in the sense that it is presenting greater risks to producer countries, risks that have traditionally been the natural function of the timber trade in the consuming countries.
7. The general economic level of activity and consequent growth continue to moderate in both North America and Europe but shows increases in other areas notably Japan, whose general economic activity continues to expand at a steady pace. The moderation in Europe and North America was particularly noticeable in the second half of 1989 with one notable exception, the Federal Republic of Germany, which continues to expand.

Although there was an increase in imports by the consuming countries some of this import was undoubtedly caused by purchases ahead of export taxes on sawn goods from South East Asia. This has resulted in a greater carry-over of stock into 1990 which in certain areas is being sold on the market at prices which do not reflect buyers' replacement costs. In the Asia/Pacific region economic activity remains strong and increasing with a resultant increase in the demand for wood products taking some of the slack from export markets. Those countries in this area with low forest inventories are taking materials from those relatively richer in resources. This trend to a higher domestic demand and an intra-regional export trade will undoubtedly continue.

8. The reason for the use of tropical hardwood has been the combination of the quality and the value of the raw material. That is why tropical timbers maintain a strong share in the market. There are nonetheless very few which could not be substituted by other possible inferior and less environmentally friendly non-wood materials.
9. Uncertainty in the market was most marked in 1989 again notably in the second half of the year. At the time when demand was decreasing, rumours and counter rumours about continuity of supply and increasing export taxes on sawn wood in South East Asia had a destabilising effect with many end users turning to wood and non-wood materials from sectors which offered greater stability in supply.
10. The environmental issue continues to be increasingly at the forefront of public concern. Whilst some groups maintain constructive dialogue over the issue others appear set on a course of advocating a boycott. As was affirmed by His Royal Highness Prince Bernhard of The Netherlands, President of WWF Netherlands, at the Opening of the Eighth Session of the International Tropical Timber Council: "All measures prohibiting the import of tropical hardwood are counter productive and therefore do not solve the problem of the tropical forest". A similar view was also expressed by His Excellency the Minister of Foreign Trade of The Netherlands on the same occasion. This opinion is also reiterated in several quarters including the U.K. House of Lords Select Committee on the European Communities - Tropical Forests in their Eleventh Report.

/...

The reforestation issue was addressed by His Excellency President Soeharto of Indonesia, in his address at the Opening Ceremony, when he outlined Indonesia's commitment to and implementation of sound forest management.

Furthermore, consuming countries such as China, Korea and India are taking firm steps to meet the challenge by instituting and expanding reforestation schemes.

The ITTO has a significant role to play in providing more detailed and authoritative information about the growing attention now being paid to the question of sustainable yield.

This could support the information of individual country efforts on this matter. Destabilization of trading from whatever source is counter productive and is to be deplored.

11. The trade associations in most consuming areas are using their best endeavours to provide positive assistance to producer countries to show that these countries are making the best efforts to utilize their forest resources effectively and sustainably.

The Japan Lumber Importers' Association (JLIA) and the Japan Plywood Manufacturers' Association (JPMA) have provided funds to ITTO. The JPMA are also sponsoring through the ITTO a World Conference on Tropical Plywood in the Asia/Pacific region to be held after the Ninth Session of the ITTC in Yokohama.

In North America, the International Hardwood Products Association (IHPA) has fulfilled its undertaking to commit resources to promote the preservation of the tropical forest through, conservation, utilization, reforestation and education (CURE) by sponsoring a Workshop together with the Smithsonian Institution and attended by authorities representing forestry experts, economists, and environmental groups to formulate a consensus statement on the tropical forest situation.

The European Timber Importers (U.C.B.T.) have endeavoured to establish a statutory surcharge on all imports of tropical woods but for a variety of reasons have not been successful so far.

12. It is recognised in all consumer countries that it is essential in producing countries that the level of income they obtain from their forest products must be at a level to enable them to maintain their productive forest resources for all times. The producer countries, by increasing export taxes and using this revenue to promote sound forest polices, show they are determined to meet the situation.
13. The ITTO is seeking to establish that it is the recognised forum to address the important issues in the tropical timber sector. It is the only international forum in which producer and consumer nations working together with conservation NGOs and trade and industry can meet on common ground to solve the problems which have arisen from the past. It will continue to build upon the sound beginnings it has made.

/...

ANNEX IV

SCHEDULE OF OFFICIAL TRAVEL AND PARTICIPATION AT CONFERENCES

1. Administration

**Executive Director**

- 21-30 January 1990 - held informal consultations with Government officials, other relevant authorities and organizations in Jakarta, Indonesia and Bangkok, Thailand.
- 7-26 February 1990 - participated in ITTO Mission to Sarawak, Malaysia.
- 14 March-2 April 1990 - participated in ITTO Mission to Sarawak.
- 9-24 May 1990 - Eighth ITTC Session in Bali, Indonesia.
- 18-21 June 1990 - visited Seoul, Republic of Korea for consultations with Government officials and other authorities.
- 8-18 September 1990 - visited Port Moresby, Papua New Guinea and Canberra, Australia for consultations. Addressed ATIBT Forum in Hong Kong.
- 22-29 September 1990 - attended and addressed FAO COFO Session in Rome; PECC meeting in Kuala Lumpur and visited Jakarta for consultations.
- 13-24 October 1990 - Executive Director visited Bangkok for consultations with Government authorities; Brussels for consultations during EEC co-ordinating meeting on ITTO; consultations in Bern; and visited also Amsterdam for discussions with Common Fund for Commodities Secretariat.

**Other Staff**

- 9-24 May 1990 - Finance/Administrative Officer, Personal Assistant to Executive Director, and 3 secretaries attended Eighth ITTC Session in Bali, Indonesia

2. Economic Information and Market Intelligence

**Assistant Director**

- 20-23 March 1990 - attended the meeting of the Expert Panel on the Action Plan and Work Programme in the area of Economic Information and Market Intelligence, The Hague, The Netherlands

/...

- 8-24 May 1990 - assisted in organization of and attended the Eighth Session of the ITTC and the Sixth Sessions of the Permanent Committees, Bali, Indonesia.
- 4-7 June 1990 - went on mission to Wageningen, The Netherlands, to review work on Project PD 14/87 (M) being executed by SBH.
- 9-24 May 1990 - Eighth ITTC Session in Bali, Indonesia.
- 10-15 June 1990 - attended the 10th Meeting of TFAP Advisors, Rome.
- 10-31 August 1990 - attended the First Session of UNCED Preparatory Committee, Nairobi, Kenya.
- 21-26 September 1990 - attended Meeting of COFO (FAO), Rome and held discussions on ITTO's preparations for the 10th World Forestry Congress.
- 26-30 November 1990 - attended Zaire TFAP Round Table in Kinshasa, Zaire.
- 4-7 December 1990 - went on review mission to U.K. to Oxford Forestry Institute and World Conservation Monitoring Centre.
- 10-14 December 1990 - attended the 11th Meeting of TFAP Advisors, Helsinki, Finland.
- 17-18 December 1990 - participated in the UNCED Working Party in Geneva.

#### Statistician

- 13-31 December 1990 - the statistician visited CINTRAFOR (Seattle) and Forestry Canada (Ottawa) for familiarization and to discuss possible means of cooperation with ITTO.

#### Programmer/Systems Analyst

- 12-24 May 1990 - Eighth ITTC Session in Bali, Indonesia.
- 24 May - 6 June 1990 - familiarization visit to ESCAP in Bangkok.

### 3. Reforestation and Forest Management

#### Assistant Director

- 02-08 March 1990 - conducted, in cooperation with ABC, Brazil a progress review of Project PD 24/88 (F) in Rio Branco, Acre, Brazil.



- 09-15 March 1990 - participated in a Working Group session for finalizing a first draft of Committee document "Guidelines for Best Practice and Sustainability in the Management of Tropical Forests", in London, U.K.
- 15-20 March 1990 - traveled to Stockholm and Avesta, Sweden to assist in finalizing the reports on Pre-project "Improvement of Harvesting Systems for Sustainable Management of Tropical Forests and on Project PD 57/89 (F,I).
- 02-07 April 1990 - conducted, in cooperation with the Forestry Department, Peninsular Malaysia, a progress review of Project PD 10/87 (F), in Kuala Lumpur and south Kelantan, Malaysia.
- 12-24 May 1990 - attended the Eighth ITTC Session in Bali, Indonesia
- 25-26 May 1990 - visited the Forest Research Institute of Malaysia, Kepong, to discuss the implementation of Committee Activity "The Economic Case for Natural Forest Management".
- 03-06 September 1990 - participated in a Seminar on ITTO Pre-project "Conservation Concerns Relating to the Diversification of Tree Species Extracted for Timber" arranged by IIED and held in London, U.K.
- 07-08 September 1990 - visited FAO, Rome for consultations regarding access to data from FAO Project "Forest Resources Assessment 1990".
- 23-26 September 1990 - visited Quito, Ecuador to assess the progress in implementing ITTO Pre-project on "Management of the Natural Tropical Rain Forest for Sustainable Production of Timber and Other Forest Products while Maintaining the Ecological Balance".
- 27-30 September 1990 - visited La Paz and San Borja, Bolivia to review the progress in implementing Project PD 34/88 (F,I).
- 01-03 October 1990 - visited Brasilia, Brazil for meetings with IBAMA and other Government Agencies and with FUNATURA concerning implementation of approved ITTO Projects and revisions of new Project Proposals to be considered by the Seventh Session of the Committee.

- 03-06 October 1990 - visited Rio Branco, Acre, Brazil to assess the Progress of implementing Project PD 24/87 (F) and to discuss the planning of Phase II of the Project.
- 07-10 October 1990 - participated in FOREST 90, a symposium on environmental studies in tropical rain forests, held in Manaus, Brazil on 7 - 13 October, 1990.
- 11-13 October 1990 - visited Santa Cruz, Bolivia to discuss with officials of Universidad Autónoma Gabriel René Moreno and the National Chamber of Forestry the possible assistance by those institutions in implementing projects PD 81/90 (F), PD 86/90 (F) and PD 88/90 (F).
- 15-19 October 1990 - attended a seminar on "Logging Technology for Tropical Forests" arranged by Forest Operations Institute, Stockholm, based on the results of ITTO's Pre-project study of harvesting methods.
- 09-11 December 1990 - participated in a progress review of Project PD 11/87 (I) held in Kuala Lumpur, Malaysia.
- 12-14 December 1990 - visited Jakarta, Indonesia to finalize, in cooperation with the Ministry of Forestry, Government of Indonesia, the Agreements for implementing Projects PD 84/90 (F) and PD 89/90 (F).

#### Ecologist

- 01-08 April 1990 - Port Moresby, Papua New Guinea, for participation in TFAP Roundtable meeting. Trip included visit to Lae for consultations with Director of Forestry Research Institute and FAO personnel.
- 09-13 May 1990 - Kuala Lumpur, Malaysia, for meeting with governmental authorities (Forestry Research Institute and Forestry Department), and World Wide Fund for Nature/Malaysia. Trip included field excursion and consultations on ITTO PD 10/87, and visit to ASEAN Institute of Forest Management.
- 12-24 May 1990 - Eighth ITTC Session, Bali, Indonesia
- 24-26 May 1990 - East Kalimantan, Indonesia, for field excursion and consultations on ITTO PD 84/90 (F) and visit to Tropenbos field station near Samarinda.

- 04-12 July 1990 - Geneva and Gland, Switzerland, for participation in UNEP's 3rd session meeting of "Working group of experts on Biodiversity". Trip included brief visit to IUCN/WWF headquarter in Gland for consultation on an ITTO Pre-Project.
- 25-30 July 1990 - Kathmandu, Nepal, for consultations with Ministry of Forests and Soil Conservation on Nepal membership in ITTO and assistance in project development.
- 23-30 August 1990 - Participated in the V International Congress of Ecology in Yokohama, Japan.
- 4 October 1990 - Participated in 8th Biennial Convention of Asian Association of Agricultural Colleges and Universities, in Nagoya, Japan.
- 19-24 October 1990 - Bangkok, Thailand, for participation in ITTO Pre-Project "Global Change: effects on tropical forests, agricultural, urban and industrial ecosystems."
- 25 October 1990 - Jakarta, Indonesia, for participation in "Tropical Rainforests Conference", by the International Federation of Building and Woodworkers.
- 30 Oct.-13 Nov. 1990 - Ghana and Cameroon, for monitoring of ITTO Projects and Pre-projects (two in Ghana and four in Cameroon) and consultations on new projects.
- 28 Nov.-5 Dec. 1990 - Perth, Australia, for participation in IUCN's General Assembly and organizing workshop as part of ITTO Pre-project on conservation of biological diversity.

4. Forest Industry

**Assistant Director**

- 2-24 February 1990 - helped to organize and attended a Seminar in Accra, Ghana, organized under ITTO-project PD 44/88 (I) "The Promotion of Further Processing of Tropical Hardwood Timber of the African Region".
- 12-16 March 1990 - represented ITTO at the FAO Fourteenth Session of the Asia Pacific Forestry Commission held in Manila, Philippines.

- 20-23 March 1990 - attended the meeting of the Expert Panel on the Action Plan and Work Programme in the area of Forest Industry, The Hague, The Netherlands.
- 25-27 April 1990 - helped to organize and participated in a coordination meeting to arrange implementation of project PD 16/87 Rev.1 (I) "Research and Development for the Standardization of Tropical Timber at the Andean Sub-regional Level - Phase I: Review of the Current Situation of Timber Standardization and Development of Work plans for Subsequent Phases" held in Lima, Peru.
- 8-24 May 1990 - ITTC Eighth Session, Bali, Indonesia.
- 28-29 May 1990 - visited MTIB (Kuala Lumpur, Malaysia) to review meeting of project PD 11/87 (I) "Malaysian Timber Industry Board and Timber Industry Upgrading".
- 15-25 June 1990 - attended a meeting to review the document "Guidelines for Planning of Appropriate Forest Industries" prepared under Project PD 4/87 Rev.1 (I) "Training in Planning and Management of Forest Industries in Developing Countries" held in Rome, Italy.
  - discussions at FAO (Rome, Italy) Department of Operations with a view to expedite FAO's activities as a sub-contractor in Project PD 60/89 (F,M,I) "Fellowship and Related Assistance Program to Promote Tropical Forest Sector Development".
- 17-27 October 1990 - visited Pucallpa (Peru), the site of implementation of project PD 37/88 Rev.3 (I) "Industrial Utilization of New Tropical Species in Peru (Phase I)".
  - participated in a Seminar to revise and finalize work proposals drafted under project PD 16/87 Rev.1 (I) "Research and Development for the Standardization of Tropical Timber at the Andean Sub-regional Level - Phase 1: Review of the Current Situation of Timber Standardization and Development of Work Plans for Subsequent Phases" held in Lima, Peru.

**Projects Manager**

- 2-24 February 1990 - helped to organize and attended a Seminar in Accra, Ghana, organized under ITTO-project PD 44/88 (I) "The Promotion of Further Processing of Tropical Hardwood Timber of the African Region".
- 8-24 May 1990 - ITTC Eighth Session, Bali, Indonesia.
- 5-11 August 1990 - participated in the IUFRO Conference held in Montreal, Canada and made a presentation on behalf of the Executive Director.

ANNEX V

CONTRIBUTIONS TO THE SPECIAL ACCOUNT - 1990  
(in U.S. dollars)

PRE-PROJECT SUB-ACCOUNT

Australia	50,000.00	50,000.00
Japan	19,987.00 914,123.98 357,439.98	1,291,550.96
Finland	18,226.46	18,226.46
The Netherlands	60,000.00	60,000.00
Norway	5,000.00	5,000.00
United Kingdom	70,835.00 65,000.00	135,835.00
	TOTAL:	----- \$1,560,612.42 =====

PROJECT SUB-ACCOUNT

Denmark	100,000.00 100,000.00	200,000.00
Japan	771,818.00 893,784.00 19,217,876.02 115,000.00 3,000,000.00 1,560.382.02	25,558,860.04
The Netherlands	13,000.00 236,351.23 118,175.62	367,526.85
Norway	57,383.80	57,383.80
Switzerland	150,000.00 192,954.50 220,000.00 108,821.00	671,775.50
United Kingdom	50,000.00	50,000.00
Japan Lumber Importers Association	16,500.00 40,330.00	56,830.00
Japan Plywood Manufacturers Association	30,000.00	30,000.00
	TOTAL:	----- \$26,992,376.19 =====

ANNEX VI

Administrative Budget 1991  
Estimated Expenditures for the Financial Year 1991  
(in United States dollars)

[Post Adjustment Multiplier: 141.0; U.N. Rate of Exchange US\$ 1 = ¥148]

	<u>Estimated Total</u>
<b>A. SALARIES AND BENEFITS</b>	
A1. Salaries .....	911,846
A2. Staff Assessment .....	[ 72,640]*/
A3. Post Adjustment .....	722,454
A4. Rental Subsidy .....	92,000
A5. Education Grant plus Travel .....	107,582
A6. Dependency Allowance .....	38,512
A7. Home Leave .....	33,075
A8. Language Allowance .....	4,000
A9. Overtime .....	19,000
A10. Mobility & Hardship Allowance .....	24,600
A11. Separation Benefits .....	50,355
A12. Removal Costs .....	40,950
A13. Repatriation Travel .....	35,280
Component Total:	<u>\$2,079,654</u>
<b>B. INSTALLATION COSTS</b>	
B1. Assignment Grant .....	75,600
B2. Lumpsum Benefit .....	35,702
Component Total:	<u>\$111,302</u>
<b>C. OFFICIAL TRAVEL</b>	
C1. Transportation/Tickets .....	141,900
C2. DSA .....	67,800
Component Total:	<u>\$209,700</u>
<b>D. SOCIAL SECURITY</b>	
D1. Provident Fund .....	147,503
D2. Accident/Health Insurance .....	16,373
D3. Japanese National Scheme .....	43,140
Component Total:	<u>\$207,016</u>
<b>E. CONSULTANTS .....</b>	<u>200,000</u>
Component Total:	<u>\$200,000</u>
<b>F. DATA PROCESSING</b>	
F1. Computer Software and Servicing .....	23,000
F2. Communications, User Charges and Supplies .....	64,000
F3. Training and Staff Development .....	10,000
Component Total:	<u>\$97,000</u>

\*/ Applied to Japanese Staff only, and payable by Japan.

/...

	<u>Estimated Total</u>
G. OTHER COSTS	
G1. Communications .....	60,000
G2. Publications .....	45,000
G3. Transport .....	20,000
G4. Library .....	20,000
G5. Supplies .....	30,000
G6. Hospitality .....	17,000
G7. Bank Charges .....	12,000
G8. Auditor .....	35,000
G9. Miscellaneous .....	10,000
Component Total:	<u>\$249,000</u>
H. COUNCIL MEETINGS	
H1. Costs not met by Japan .....	20,000
Component Total:	<u>\$20,000</u>
I. COSTS MET BY JAPAN	
I1. Office, equipment, utilities .....	<u>**/</u>
I2. Council Meetings .....	<u>**/</u>
I3. Initial Travel .....	<u>**/</u>
I2. Removal Costs .....	<u>**/</u>
Component Total:	<u>**/</u>
J. CONTINGENCY RESERVE .....	-
Component Total:	<u>-</u>
GRAND TOTAL:	<u><u>\$3,173,672</u></u>

\*\*/ Payable or reimbursable by Japan based on actual expenditures.



Estimated Receipts for the Financial Year 1991  
(in United States dollars)  
(Revised)

1. Bank Interest earned in 1990 .....	US\$ 92,372.00
2. Assessed Contribution of Members for 1991 .....	3,081,300.00
	<hr/>
TOTAL (equivalent to estimated expenditures):	US\$ 3,173,672.00
	<hr/> <hr/>

Assessed Contributions of Members for 1991  
(Total: US\$ 3,081,300.00)

<u>PRODUCERS</u>	<u>Votes</u>	<u>Contribution</u>
<u>Africa</u>		
Cameroon .....	28	43,138
Congo .....	28	43,138
Côte d'Ivoire .....	29	44,679
Gabon .....	29	44,679
Ghana .....	28	43,138
Liberia .....	28	43,138
Togo .....	28	43,138
Zaire .....	29	44,679
<u>Asia and Pacific</u>		
India .....	38	58,545
Indonesia .....	166	255,748
Malaysia .....	147	226,476
Papua New Guinea .....	33	50,841
Philippines .....	37	57,004
Thailand .....	24	36,976
<u>Latin America</u>		
Bolivia .....	30	46,220
Brazil .....	156	240,341
Colombia .....	33	50,841
Ecuador .....	22	33,894
Honduras .....	17	26,191
Panama .....	18	27,732
Peru .....	35	53,923
Trinidad and Tobago .....	17	26,191
Total (Producers):	<u>1,000</u>	<u>\$1,540,650</u>
<u>CONSUMERS</u>		
Australia .....	19	29,272
Austria .....	11	16,947
Canada .....	16	24,650
China .....	29	44,679
Egypt .....	14	21,569
<u>European Economic Community</u>		
Belgium-Luxembourg .....	28	43,138
Denmark .....	12	18,488
France .....	52	80,114
Germany .....	47	72,411
Greece .....	13	20,028
Ireland .....	12	18,488
Italy .....	38	59,545
Netherlands .....	46	70,870
Portugal .....	18	27,732
Spain .....	26	40,057
United Kingdom of Great Britain and Northern Ireland .....	64	98,602
Finland .....	10	15,407
Japan .....	305	469,898
Nepal .....	10	15,406
Norway .....	10	15,406
Republic of Korea .....	84	129,415
Sweden .....	11	16,947
Switzerland .....	11	16,947
Union of Soviet Socialist Republics .....	13	20,028
United States of America .....	101	155,606
Total (Consumers):	<u>1,000</u>	<u>\$1,540,650</u>
GRAND TOTAL:		<u>\$3,081,300</u>