REPORT OF THE THIRTY-SEVENTH SESSION

held at Geneva from 15 to 19 October 1979

As approved by the Committee

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Introduction

1. The Timber Committee held its thirty-seventh session at Geneva from 15 to 19 October 1979. The session was attended by representatives from the following ECE countries: Austria; Belgium; Bulgaria; Byelorussian Soviet Socialist Republic; Canada; Czechoslovakia; Finland; France; German Democratic Republic; Germany, Federal Republic of; Hungary; Ireland; Italy; Netherlands; Norway; Poland; Portugal; Romania; Spain; Sweden; Switzerland; Turkey; Ukrainian Soviet Socialist Republic; Union of Soviet Socialist Republics; United Kingdom of Great Britain and Northern Ireland; United States of America; Yugoslavia. 1/

2. The following country participated under article XI of the Commission's terms of reference: Japan.

3. The following United Nations and specialized agencies were represented: United Nations Conference on Trade and Development (UNCTAD); International Labour Organization (ILO); Food and Agriculture Organization of the United Nations (FAO).

4. The following intergovernmental organization participated: the European Economic Community (EEC).

5. The following non-governmental organizations were represented: European Confederation of Agriculture (CEA); International Organization for Standardization (ISO); Organization of European Sawmilling Industries (OES); Tropical Timber Traders' Union of the European Economic Community (UCBT).

6. The Committee paid homage to the memory of Mr. E. Glesinger, one of the founders of the Committee and long-time Director of the ECE/FAO Timber Division, later Director of the FAO Forest and Forest Industries Division and Assistant Director-General of FAO, and to the memory of Mr. J. Bakker, former Vice-Chairman of the Committee and for many years a delegate of the Netherlands to the Committee.

Adoption of the agenda (Item 1 of the agenda)

7. The provisional agenda (ECE/TIM/14), presented by the secretariat, was adopted.

Election of officers (Item 2 of the agenda)

8. The Committee re-elected Mr. V. P. Nemtsov (USSR) Chairman, and Mr. A. Froncillo (Italy) and Mr. D. Hair (United States of America), Vice-Chairmen.

Matters arising out of the thirty-fourth session of the Commission (Item 3 of the agenda)

9. The Committee was informed of the Commission's discussion of its work and took note of the resolution and decisions of the Commission, on the basis of TIM/R.48. The Committee agreed to take account of these discussions, resolutions and decisions in its session and notably when deciding on its programme of work.

1/ Further information about participation may be obtained from the secretariat: Timber Section, ECE/FAO Agriculture and Timber Division, Palais des Nations, CH-1211 Geneva 10.
10. The Committee regretted that it was no longer possible for the United Nations to issue the proceedings of seminars and symposia held under ECE auspices, although it noted that such proceedings were often published by the host country or by a commercial publishing house. The Committee was also informed that the Joint FAO/ECE/ILo Committee on Forest Working Techniques and Training of Forest Workers had been invited by the FAO European Forestry Commission to draw up proposals for improving the transfer of the Joint Committee's work to developing countries. The Joint Committee's Steering Committee, in a preliminary examination of the problem, had concluded that a first step in this direction would be to set up a unified system of publishing the technical information made available at its meetings and through the work of its teams of specialists.

Activities of other international bodies relevant to the work of the Committee (Item 4 of the agenda)

11. The Committee was informed that the FAO European Forestry Commission had met in Rome from 24 to 28 September 1979. Among other things, the Commission had recommended the reactivation of "Silva Mediterranea", a suggestion which the Committee would discuss when reviewing the results of the ad hoc meeting on South European countries' prospects and policies in the forestry and forest industry sector, to be discussed under item 6(e) of the agenda. The Committee was informed that the FAO Advisory Committee on Wood-based Panel Products would meet in April 1980, that the fifth session of the Committee on Forestry would take place in May 1980 and that the Advisory Committee on Pulp and Paper would also meet in May 1980.

12. The representative of UNCTAD informed the Committee that the fifth preparatory meeting on tropical timber, originally scheduled for June 1979, had been postponed to 22 to 26 October 1979. The Committee noted that among the main issues to be discussed at the preparatory meeting would be the need for improved market intelligence for tropical timber and for regular consultation between producing and consuming countries. The Committee suggested that it could usefully co-operate with UNCTAD and FAO in these fields and requested the secretariat to explore this matter further with UNCTAD and FAO and to transmit to the preparatory meeting its suggestion that a joint UNCTAD/Timber Committee session be organized for an in-depth review of the tropical timber market, in which both producers and consumers could participate.

13. The Committee was informed of the activities of the European Economic Community (EEC) in the field of forestry and forest industries, and notably of its work on some main principles and objectives of forest policy common to member states, on the special problems of Mediterranean forestry, of regulations being promulgated to protect European forests from the risks of introduction of oak wilt disease which was present in several states of the USA, and of various research studies carried out by the EEC. The Committee was also informed that a congress was being organized in 1980 under the auspices of EEC on the production of biomass for energy.

14. The Committee was informed of the activities in the field of forestry of the European Confederation of Agriculture (CEA) which represented private forest owners. The Committee noted that several of the CEA's major preoccupations, notably the influence of taxes on forest production, the effect of rising production costs and the necessity for further research, were directly linked to some of its own projects. The Committee noted with pleasure that its own work had been useful to the CEA and hoped that there would be further co-operation between the two bodies.
15. The Chairman of the Working Party, Mr. E. Clicheroux (Belgium) presented the report of the twelfth session (TIM/EFC/WP.2/3) held from 2-6 July 1979, which was approved by the Committee. He drew attention to the Working Party's recommendations on forest resource assessment, labour statistics, taxation, classification of forest products, surveys of industry capacity, conversion factors and forest fire statistics. He mentioned that in preparing its recommendation on the future programme, the Working Party had included a number of items which because of the limitations of resources may have to be postponed. The Committee agreed to re-examine this matter under item 10 of the agenda.

16. On the specific question of the conversion from other measurement systems to the metric system, the Canadian and United States delegations accepted the Working Party's invitation to advise on suitable factors for conversion of board foot measure of sawnwood to metric measure.

17. The Committee welcomed the introduction of more economic studies into the Working Party's programme. The Committee stressed, however, the importance of avoiding duplication of effort and recommended that, whenever appropriate, the Working Party should act in close collaboration with the Joint FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers. The possibility of duplication of effort existed particularly in the field of labour productivity (project 14.5.2.5.), of economic assessment of afforestation and reforestation (project 14.5.3.2.) and of economic aspects of the introduction of new forest machines and equipment (project 14.5.3.3.).

Review of Timber Committee activities between the thirty-sixth and thirty-seventh sessions (Item 6 of the agenda)

(a) Seminar on energy aspects of the forest industries

18. The Committee was informed of the results of the seminar on energy aspects of the forest industries, which had taken place in Udine, at the invitation of the Government of Italy, from 13 to 17 November 1978 and endorsed the seminar's report (TIM/SEM.7/2). The seminar, under the Chairmanship of Mr. G. Giordano (Italy), had examined energy use by the forest sector and the use of wood as a source of energy, as well as questions of research, environment and legislation. The seminar had stressed the special position of the forest and forest industries sector, whose source of raw material was also a renewable source of energy, and considered that the sector would be able to adapt itself to a situation marked by higher prices for energy. The seminar had also drawn attention to the unsatisfactory situation as regards the availability and quality of data on wood/energy questions.

19. The Committee drew the seminar's recommendations, conclusions and discussions, as well as the relevant papers, to the attention of the Economic Commission for Europe and its appropriate subsidiary bodies, notably the Senior Advisors to ECE Governments on Energy, who were to meet from 29 October to 1 November 1979. The Committee also endorsed the seminar's recommendations that Governments "assess the situation at the national level as regards energy consumption by the forest industries and energy derived from from wood" and "take into account in their legislation and regulations the specific characteristics of the forest industries, notably the fact that wood, especially wood residues, may be a viable source of energy" (cf. TIM/SEM.7/2, para. 59, recommendations B(8) and (9)).
20. The Committee noted with pleasure that, in accordance with the seminar's recommendations, the Medium-term Survey of Trends for Pulpwood and Other Roundwood had paid special attention to the generation of energy from wood (see paras 46-49 below). The Committee also noted that the Joint FAO/ECE Working Party on Forest Economics and Statistics had conducted a preliminary examination of the availability of statistics on energy consumption by the forest industries and on energy derived from wood; and endorsed the Working Party's proposal "to convene a team of specialists (to look into these questions in greater detail) and make recommendations to the Working Party at its session in 1981 for the collection of data and any other work it considered the Working Party should undertake in the energy field" (cf. TIM/EFF/WP.2/8, paras 55-57).

21. The Committee also noted that the papers presented to the seminar were being published by Pergamon Press, Oxford (United Kingdom) and should be available by the end of 1979.

22. The Committee expressed its appreciation to the Government of Italy for acting as host to the seminar and for the generous hospitality extended to participants during the seminar itself and during the study visits which had been arranged in conjunction with it.

(b) Seminar on the utilization of tropical hardwoods

23. The Committee was informed of the results of the seminar, held in Amsterdam from 15 to 18 May 1979 at the invitation of the Government of the Netherlands, on the basis of the seminar's report (TIM/SEM.8/2), introduced by its Chairman, Mr. J.N. van de Stadt (Netherlands). The Committee expressed deep appreciation to the Government of the Netherlands for the excellent organization of the seminar, including a one-day study visit to timber trade and industry enterprises as well as to housing developments and other examples of the use of tropical wood.

24. The Committee agreed that continuity of supply was a matter of concern to all those using tropical hardwoods. The Committee welcomed the active participation in the seminar of representatives of producers/exporters, importers and users of tropical hardwoods, as well as researchers.

25. The Committee agreed to continue to attach high priority to questions of tropical timber, and particularly to monitoring the changing patterns of markets and utilization, notably by means of its annual review of tropical hardwood markets. In the light of the results of the seminar, it considered that its suggestion in para. 12 above regarding possible collaboration with UNCTAD and FAO would also be a practical means of providing a useful service to the tropical hardwood sector.

(c) Symposium on the effects of air-borne pollution on vegetation

26. The Committee was informed by the Chairman, Mr. W. Michajłow (Poland) of the results of the symposium on the effects of air-borne pollution on vegetation, which had taken place in Warsaw, at the invitation of the Government of Poland from 20-24 August 1979 under the joint auspices of the Timber Committee and the Committee on Agricultural Problems and in co-operation with the United Nations Environment Programme (UNEP) and the Senior Advisers to ECE Governments on Environmental Problems. The symposium was preceded by a study tour from 17 to 19 August in Puławy, Upper Silesia and Cracow. The Committee endorsed the symposium's report (AGRI/SEM.8/2; TIM/SEM.9/2).
27. The Committee agreed that the symposium had made a useful contribution towards achieving the objectives of improving man's understanding of the complex processes involved in air pollution damage to vegetation and of developing satisfactory methods of economic evaluation and effective monitoring systems, all of which were essential for the drawing up of legislation and regulations to reduce the damage.

28. The Committee drew the symposium's conclusions and recommendations to the attention of ECE and agreed that they would be useful for the implementation of the Draft Convention on Long-Range Trans-Boundary Air Pollution which will be presented for formal adoption to the High-level Meeting within the framework of ECE on the Protection of the Environment, scheduled for 13 to 16 November 1979, especially with regard to the provisions in the Draft Convention on research and development, exchange of information and the monitoring and evaluation of air pollution. The Committee also drew the symposium's recommendations to the attention of Governments and interested international organizations, notably UNEP, in the context of the Global Environment Monitoring System (GEMS) and IUFRO, especially its subject group S2.09.

29. The Committee expressed its appreciation of the fact that the Polish Government intended to publish in early 1980 the papers presented to the symposium.

30. The Committee warmly thanked the Government of Poland for acting as host to the symposium and study tour, for the excellent organization and the generous hospitality extended to participants. The Committee also expressed its gratitude to UNEP which had promised to contribute up to $30,000 towards the costs of the symposium.

(d) Study tour in the USSR

31. The Committee was informed of the study tour in the USSR which was held from 2 to 14 September 1979. Sixty-seven participants from nineteen countries took part and visited forest and forest industry enterprises in and around Moscow and in Siberia, with special emphasis on organization of work at logging sites, transport of products and operations in primary conversion centres. They also visited the International Timber Industry Equipment Exhibition (Lesdrevmash '79) and the Research Institute for Silviculture and Mechanization of Forest Work.

32. The Committee warmly thanked the Government of the USSR for a particularly interesting study tour and also for the generous and friendly hospitality extended to the participants.

(e) Ad hoc meeting on South European countries' prospects and policies in the forestry and forest industry sector

33. The Committee examined the report of the ad hoc meeting (TIM/EFC/AC.1/2), introduced by the secretariat on behalf of the Chairman, Mr. M. Ferreirinha (Portugal). The meeting had been held in Lisbon (Portugal), from 19 to 21 September 1979 in co-operation with the FAO European Forestry Commission, which had discussed the meeting's results at its nineteenth session on 24-26 September 1979.
34. The Committee considered that the meeting had successfully achieved its objectives which had been to provide countries in the Mediterranean region with the opportunity to review trends, to identify common problem areas and to formulate recommendations on appropriate courses of action at the national and international level.

35. The Committee approved the report of the meeting, including its proposals for future action. It noted that the European Forestry Commission had supported the meeting's recommendation to reactivate the AFC/EFC/NEFC Committee on Mediterranean Forestry questions - "Silva Mediterránea" and had made its own proposals to FAO as to the constitutional form in which it should carry out its activities. The Committee also supported the meeting's recommendation concerning "Silva Mediterránea" and agreed that it should seek to be closely associated with the future activities of that body as part of its continuing co-operation with the European Forestry Commission.

36. At the same time, the Committee noted that a number of the meeting's recommendations fell within its own area of competence and agreed that informal meetings of specialists should be convened periodically, at which specific topics of interest to Mediterranean countries could be examined. The first such meeting should deal with problems related to the production and marketing of products of specific interest to Mediterranean forestry, including cork and resin. It requested the secretariat to discuss the organization of the meeting with possible host countries. It agreed to give further consideration to this matter and to the "ad hoc" meeting's other proposals at its thirty-eighth session in the light of developments with regard to "Silva Mediterránea".

37. The Committee expressed its deep appreciation to the Government of Portugal for the excellent arrangements made for the ad hoc meeting, including the two-day study tour which had preceded it.

(f) Standardization of stress grading and finger-jointing of coniferous sawn timber

38. The Committee was informed of developments as regards stress grading and finger-jointing of coniferous sawn timber on the basis of TIM/R.49 and on an oral report by Mr. W.B. Townsley (Canada), Chairman of the informal teams.

39. The Committee noted that the meeting of the informal teams scheduled for April 1979 had had to be postponed, because of changes in personnel in the sub-group charged with formulating proposals for quality control programmes and marking systems. The sub-group had been re-activated, however, under the leadership of Mr. B. Norén (Sweden) and the Committee agreed that the informal teams should meet in March/April 1980, with the following agenda:

(a) Evaluation of progress made by countries in applying the recommended standards on stress grading and finger-jointing of coniferous sawn timber;

(b) Review of progress by the above-mentioned sub-group and proposals for further work;

(c) Discussion of draft of paper on quality marks, standardization and harmonization of finger-jointed timber to be presented to the seminar on the production, marketing and use of finger-jointed sawnwood, Norway, September 1980 (see paras 89-90 below);
(d) Review of the situation with regard to the project to reduce the number of standard dimensions of sawnwood entering international trade and formulation of proposals for possible further action.

40. The Committee was informed that several of the members of the informal teams, including Mr. W. Townsley the Committee's standardization co-ordinator, Mr. F. Palmer (United Kingdom) and the secretariat, had met the Chairman and secretariat of ISO TC 55 during the Committee's study tour in the USSR. The Committee repeated the importance it attached to continuing and improving co-operation with ISO TC 55, notably by the exchange of all relevant documents and by participation of each organization in the other's meetings. A representative of ISO should be invited to the meeting of the informal teams in 1980, and Mr. W. Townsley, with the secretariat, was requested to ensure that the Timber Committee was represented at future meetings of ISO TC 55.

41. It was pointed out by the representative of ISO that in technical matters ISO technical committees take into consideration recommendations from other organizations in liaison, but that decisions are made on the basis of consensus of all members. It followed therefore that if UN/ECE governments wish to influence decisions made in ISO technical committees, it would be useful if they could make known their views through their own national standards institutions (ISO member bodies) for consideration by the appropriate ISO technical committee.

42. The Committee requested those countries which had not yet done so to report to the secretariat on progress in incorporating the provisions of the recommended standards into their own standards, on difficulties encountered and experience gained in applying the standards (cf. ECE/TIM/13, para. 13). Reports should reach the secretariat by 15 February 1980 so that they may be presented to the meeting of the informal teams.

43. The Committee welcomed the close co-operation between the informal teams and the organizers of the seminar on production, marketing and uses of finger-jointed sawnwood, and endorsed the suggestion that the informal teams should prepare a paper on quality marks, standardization and harmonization for presentation at the seminar.

44. The Committee was informed that there was at present no unified body of opinion in favour of drawing up internationally standardized rules for stress grading of small-section timber. In the circumstances, further work on this subject should not be undertaken until a clear need for it had been identified.

45. The Committee recognized that there were also differences of opinion on the question of reducing the number of standard dimensions of sawnwood entering international trade. It asked Mr. W. Townsley to request representatives of producers, traders and consumers of sawn softwood to prepare papers on the economic advantages or disadvantages which could arise from such a reduction. If any work were to be undertaken to reduce the number of standard dimensions, it should take into account IS 3179 and any changes to that standard which might be proposed in the framework of ISO TC 55.
Market trends and prospects (Item 7 of the agenda)

(a) Medium-term survey of trends for pulpwood and other roundwood

46. The Committee was presented with the results of the Medium-term Survey of Trends for Pulpwood and Other Roundwood, which was being issued as Supplement 9 to Volume XXXI of the Timber Bulletin for Europe. The survey reviewed not only trends in consumption, supply, trade and prices of pulpwood and miscellaneous roundwood but also production and supply of roundwood as a whole, and trends in the generation of energy from wood. It also compared developments up to 1977 with the forecasts of European Timber Trends and Prospects, 1950 to 2000 (ETTS III). Among the major conclusions of the survey, which reviewed the period from 1970 to 1977, were the following:

- wood residues, chips and particles had taken a growing share of pulpwood consumption and trade in all regions;

- there had been changes in the pattern of world pulpwood trade, with intra-Nordic trade and EEC net imports losing in importance; intra-EEC trade and Japanese imports, notably from outside the ECE region, grew;

- consumption of the products of pulpwood in the late 1970s was well below the ETTS III forecast trend. On the supply side, this shortfall was concentrated on European removals, while the three other elements of supply of raw material to the European pulp, paper and panels industries - transfer of industrial residues, waste paper recycling and net imports - were all at approximately the levels forecast;

- about one quarter of the volume of wood removed in the ECE region is ultimately used as a source of energy, showing that the generation of energy remains a major use for wood.

47. The Committee took note of the study's findings, for which it expressed general support, and reaffirmed the importance of examining periodically, in greater detail than was possible in its annual market reviews, the trends in particular sectors. The comparison of recorded trends with forecasts was an essential part of the Committee's regular monitoring of long-term trends and prospects in the forest sector.

48. The Committee also welcomed the fact that the survey had examined the situation as regards the generation of energy from wood, as recommended by the seminar on energy aspects of the forest industries.

44. The Committee expressed its appreciation to the secretariat for the interesting study.
(b) Developments in 1979 and prospects for 1980

50. The Committee heard a brief statement from each delegation on recent developments in their country's economy and in the main forest products markets, which supplemented countries' written statements. The Committee took note, during its discussions, of the Annual Forest Products Market Review (Supplement 1 to Volume XXXII of the Timber Bulletin for Europe), prepared by the secretariat, and of the brief comments on recent developments in the market made by the secretariat in TIM/R.50. It drew up tables of countries' estimates for 1979 and 1980 of domestic requirements, production, imports and exports of sawn softwood, coniferous logs, hardwood logs and sawnwood, particle board, plywood, fibreboard and pulpwood. A summary table is presented in Annex I.

Background

51. A major feature of the European market for forest products over the year since mid-1978 has been the marked increases in prices for a number of products, including sawn softwood, plywood, many hardwoods, notably oak and imports from south-east Asia, and woodpulp. This was accompanied by more active forward buying by importers whose end-1978 stocks had reached low levels. In several exporting countries, sawmills' and pulpmills' stocks of products and raw materials were much reduced during 1979, the latter partly as a result of supply difficulties caused by the severe weather in winter and spring of 1978/79.

52. Concern on the part of importers and consumers to cover their forward requirements, when stocks were low on a rising market, seems to have been a more important factor in the stiffness of the market than any marked upturn in real consumption in Europe. Some modest growth in the latter in 1979 is, nevertheless, expected for most of the products dealt with by the Committee, as shown in the estimates presented by countries. This growth is related to overall economic expansion in Europe which, apart from a temporary fall back caused by the winter conditions, has been continuing at a rate not very different from that in 1978. A few countries, including those benefiting from the upturn in exports of forest products, expect a higher growth in Gross Domestic Product in 1979 than in 1978.

53. New construction activity has not recovered in many European countries to the levels of the early 1970s, but in terms of demand for forest products used in building, this appears to have been offset by the growing importance of renovation and maintenance work, including "do-it-yourself", and a higher percentage of low-rise and one family houses. Dwelling starts in the United States, after remaining at a high level up to the spring of 1979, have more recently tended to decline. The United States economy also has grown at an appreciably slower rate in 1979 than in the two previous years, and there are expectations of a small decline in the winter and spring of 1979/80 followed by an upturn later in 1980.

54. The economic outlook for 1980 in the United States, however, as well as elsewhere is unusually difficult to predict because of developments arising from the sharp rise in the price of oil and concern about adequacy of its supplies in 1979 and beyond. Inflationary pressures, which had tended to ease in 1978, are now reappearing, and in many countries governments have given priority to counter-inflationary measures, notably by tightening the money supply by raising interest rates, and in some by reducing public spending. In France, however, the Government has recently taken measures to support construction activity. It is difficult to predict the net impact of these developments on the economies during the remainder of 1979 and in 1980, and even less clear how the demand for forest products will be affected.
55. Consideration was given, also, to the impact of inflationary cost trends and currency fluctuations influencing the current rising price development.

56. Hence, the Committee stressed the need, when reviewing the outlook presented below for individual products to take into account the prevailing uncertainties. Against this cautious attitude towards the prospects for the short-term, however, the Committee considered that looking further ahead, there are a number of positive implications arising from the energy situation for the mechanical forest products sector, because of the energy conservation possibilities in their production and use.

Sawn softwood and coniferous logs

57. Domestic requirements of sawn softwood in Europe in 1979 are estimated to reach 76.9 million m$^3$, an expansion of 2.3 million m$^3$ or 3% over 1978. Since the bottom of the cycle in 1975, there has been an increase in each subsequent year and the 1979 estimated volume will be the second highest after the exceptional level of 1973. Compared with 1978, production, imports and exports are estimated to rise by 4%, 6% and 0.4% respectively to 70.2 million m$^3$, 28.2 million m$^3$ and 28.7 million m$^3$ (including those of the USSR) in 1979. In 1980, a further slight increase in Europe's production is forecast. Domestic requirements, on the other hand, are expected to fall back slightly and imports and exports to fall to just below the 1978 levels.

58. Growth in trade in 1979 is resulting in an increase in stocks in the importing countries and a corresponding decline to low levels in some of the main exporting countries. The forecast decline of 1.8 million m$^3$ (6%) in imports in 1980 reflects the concern in most importing countries to reduce stocks, the cost of holding which has been aggravated by the strong rise in interest rates.

59. Following the appreciable rise in prices during the 1979 selling season, the market for 1980 has opened relatively early with continued firmness. Producers have been faced with mounting production costs, notably for energy and labour, while higher freight rates are also adding to the c.i.f. cost of imports. While producers are concerned to cover their rising costs, importers and wholesalers anticipate problems in passing on the higher prices to consumers in the continued difficult reselling conditions they foresee for next year.

60. Several exporting countries reported increasing sales of sawn softwood to countries outside Europe, notably some in the oil-exporting regions, where there is a growing interest in the use of wood.

61. Production and exports of sawn softwood in Europe (excluding the USSR) in 1979 are predicted to reach levels only once before surpassed, in 1973. This achievement will be particularly due to the high levels of production and exports in Finland and Austria.

62. United States requirements and imports of sawn softwood in 1979 are forecast to drop in 1978 by 6% and 3% respectively, to 91.8 million m$^3$ and 26.7 million m$^3$, with further declines of a similar order in 1980. This trend is related to the expected drop in dwelling starts, which will be partly offset by the repairs and renovation market. Some increases in North American exports are foreseen in the European and other offshore markets, where sales have been stimulated by the lower value of the dollar in relation to most major currencies.
63. For coniferous logs, the Committee foresees an increase of some 3% for Europe's domestic requirements in 1979 to 120.9 million m³, a similar expansion in production, but a 6% drop in imports and a 3% drop for exports. In 1980 a further smaller increase was forecast for domestic requirements and production, with a fall in imports and exports of some 3%. Finland and Sweden account for 4.2 million m³ out of the estimated European increase of 5.4 million m³ in domestic requirements between 1978 and 1980.

64. In 1979 the European markets for sawn hardwood and hardwood logs are showing a similar trend. Domestic requirements and production of both are forecast to increase modestly, and imports by 2% and 3% respectively; for exports a small drop is expected.

65. Domestic requirements of sawn hardwood are forecast to rise by 12% in 1979 in the United States, and an increase of a similar order is expected for production but a decline in exports. With regard to hardwood logs, the expected increase of exports by the United States from 0.5 million m³ in 1978 to 0.6 million m³ in 1979 is noteworthy.

66. The expansion of the European market in volume terms may not fully reflect the strong underlying trend which was evident in the price rises of a variety of assortments. Given the characteristically wide range of species and qualities of the hardwood trade, these price increases together with high interest rates and tight credit conditions are a cause of concern for stock holders. It was also suggested that the high price of a number of hardwoods might have a negative effect on demand for them. A special feature of the market has been the increasing volume of imports from the United States. In this connexion, the problem of the oak wilt disease in the United States was referred to and the associated problem of the possible transmission of this disease through imported oak to European oak forests. At the present time there is intensive research and discussion under way to modify the existing phytosanitary directive of the European Economic Community in a way which will protect European oak forests and at the same time not impose unreasonable burdens on the long-established trade in oak logs and sawnwood.

67. In the United States, there was particularly strong demand for hardwood, for pallets, for the furniture industry and for sleepers.

68. For 1980, a further moderate increase is forecast for Europe's domestic requirements and production of sawn hardwood, and a small drop for imports and exports. Similar trends are forecast for logs, except for exports which are expected to increase modestly.

69. The United States forecasts a drop in domestic requirements, production and imports in 1980, compared with the high 1979 levels. Its exports of both hardwood logs and sawnwood should remain at their 1979 level.
Wood-based panels

70. Further growth is foreseen in the European markets for wood-based panels in 1979 and 1980, but the rates of growth will continue to be well below those recorded in the years up to 1973 and vary between the different panels. Europe's domestic requirements of particle board, plywood and fibreboard in 1980 are estimated to reach in aggregate 34.3 million m$^3$, or 1.5 million m$^3$ (4.5%) more than in 1978. The Committee noted, however, that in the case of particle board, countries' expectations of production growth were rather more optimistic than for requirements, and that this was probably a reflection of the continued existence of surplus capacity in several parts of the region. Nevertheless, it does appear that the acute over-capacity in particle board as well as for other panels in the years immediately following 1973 is gradually being absorbed, partly by growth in the market, partly by the closure of a number of mills.

71. As for sawn softwood, wood-based panels producers have been faced with mounting production costs, notably for energy and labour, while higher freight rates are also adding to the c.i.f. cost of imports.

72. Europe's requirements, production and imports of plywood, after rising slightly in 1979, are forecast to decline again in 1980 to around the 1978 levels. On the other hand, while growth in the market for fibreboard has largely been confined to eastern European countries in recent years, consumption of this product is expected to rise by 490,000 m$^3$ to 4.85 million m$^3$ in 1979, with a further increase in 1980. Some countries indicated that the continued downward trend of untreated insulating board was being increasingly offset by expanded use of bitumen-impregnated insulating board.

73. It was noted that the markets for waferboard and MDF (medium-density fibreboard) have increased appreciably in North America in recent years, but that sales in Europe are up to the present not large.

Pulpwood

74. In 1979, the pulp and paper sector in Europe and North America has been generally characterized by strong demand, production higher than in 1978 and high capacity utilization ratios for most products. Pulp stocks at all stages of the chain of distribution are at or below normal levels and pulp prices have risen rather strongly. Demand for pulpwood has increased in line with these developments. The Committee estimated that European domestic requirements, which were 153 million m$^3$ in 1978 would rise by nearly 9% to over 166 million m$^3$ in 1979. In the United States of America domestic requirements were also forecast to rise in 1979, by 23% to 180 million m$^3$. Between 1978 and 1979 strong increases in domestic requirements for pulpwood were forecast for Sweden (+15% to 36 million m$^3$) and Finland (+20% to 34 million m$^3$ including bark). European domestic supply, which accounted for 94% of requirements in 1978, is also forecast to rise by 12% to 162 million m$^3$ in 1979, and domestic supply in the United States of America to 185 million m$^3$ (4%).
75. In some countries, harvesting of pulpwood (and other assortments), was hampered by severe conditions in the winter and spring of 1978/79. These and other supply factors of an economic and institutional nature along with the high level of demand from the pulp industry, reduced pulpwood stocks to low levels and caused pulpwood prices to rise in a number of countries. Nevertheless, for many owners rising harvesting costs and fiscal factors may have discouraged the production of pulpwood.

76. The United States forecasts that its pulpwood exports (mostly of chips and particles) will rise between 1973 and 1979 to 7.4 million m$^3$ (+19%) but that imports will drop to 2.4 million m$^3$ (-29%). European imports and exports are expected to remain steady in 1978 and 1979, at about 17 million m$^3$ and 10 million m$^3$ respectively.

77. A factor which is beginning to affect the hardwood pulpwood market in continental Europe is the rising demand and prices for fuelwood, which were higher than those for pulpwood in some areas. This has been a factor in raising pulpwood prices in some cases.

78. For 1980, further rises in requirements and supply of pulpwood are forecast. European domestic requirements are forecast to rise by 5% over 1979 to 175 million m$^3$ and domestic supply by 4% to 168 million m$^3$. Whereas in 1979, European supply is expected to increase by 4.1 million m$^3$ more than requirements, allowing some rebuilding of stocks, the volume rate of supply increase in 1980 is forecast to slow down to below that of requirements. Swedish and Finnish domestic requirements in 1980 are forecast to rise by 10% to 4.1 million m$^3$ and by 2% to 34.5 million m$^3$ (including bark) respectively, while Polish domestic requirements are forecast to rise by 10% to 7.2 million m$^3$. United States domestic requirements are forecast to rise only fractionally to 181 million m$^3$ next year.

Special lecture (Item 8 of the agenda)

79. As recommended by the Timber Committee's office-holders, the special lectures presented to the Committee were on the theme of the rationalization of the flow of forest products from the forest to the consumer.

80. The presentation by Mr. V.P. Nemtsov (USSR) concentrated on the equipment and methods suitable for the transport and handling of forest products in the national/industrial conditions of the USSR. Mr. E.P. Grieder (Switzerland) presented a case study which examined in detail the flows of forest products in the Bernese Oberland. Mr. B. Jönestedt (Sweden) analysed, on the basis of experience gained by his company, the main factors affecting the selection and operation of transport and distribution systems for forest products, with special reference to maritime transport.

81. The Committee thanked the lecturers warmly for their most interesting presentations and, in view of the value of the lectures, agreed that they should be published as a supplement to the Timber Bulletin for Europe.

82. The Committee recognized the importance of questions of transport and handling, and of the structure of distribution, and decided to retain project 14.2.2. on its programme of work. It requested its co-ordinator for these questions, Mr. F. Palmer (United Kingdom) to make recommendations to its annual session, when he considered there was useful work the Committee could carry out in this field.
Activities of other Principal Subsidiary Bodies of ECE of interest to the Timber Committee (Item 9 of the agenda)

83. The Committee was informed on the basis of document TIM/R.52 of the activities of other Principal Subsidiary Bodies of ECE dealing with problems of concern to it. The Committee took note of the document and agreed to take the information presented into account when discussing its own programme of work.

Programme of work for 1980-1984 (Item 10 of the agenda)

(a) Preparations for symposia and seminar scheduled for 1979 and 1980

(i) Symposium on economic and technical developments in the furniture industry

84. The Committee was informed of the state of preparations for this symposium which was scheduled to take place in Poznan (Poland) from 5 to 10 November 1979.

85. An important objective of the symposium was to discuss the interrelationship of the furniture industry, one of the major outlets for forest products, with other parts of the forest and forest industries sector. It was of interest therefore not only to experts from the furniture industry but also to a wide range of specialists from the forest products sector.

86. The Committee regretted that only a relatively small number of registrations had been received so far. It strongly urged delegations to ensure that their countries were adequately represented and thereby derive the fullest possible benefit from the symposium.

87. The Committee agreed to decide at its thirty-eighth session in 1980, on the basis of the report of the symposium, what further work it might undertake in this field.

(ii) Symposium on wood-based panels in the 1980s: economic and technical perspectives

88. The Committee approved the objectives and programme of the symposium on wood-based panels in the 1980s: economic and technical perspectives, as proposed by the preparatory meeting (TIM/R.53). At the invitation of the Government of Finland the symposium will be held at Helsinki from 12 to 16 May 1980. It will include a two-day study tour and provide an opportunity for experts to exchange information and views on the latest forecasts for developments in the wood-based panels industries and on supply and demand prospects for panels in the 1980s. Several countries had expressed interest in the symposium. The Committee requested countries to transmit to the secretariat their proposals concerning the participation of experts and their country monographs. In view of the limited time available, the basic papers, concerning which the secretariat had already contacted various countries, should reach the secretariat by 31 December 1979 at the latest.
(iii) Seminar on the production, marketing and use of finger-jointed sawwood

89. The Committee approved the proposals for the scope, objective, programme and documentation of the seminar, prepared by an informal preparatory meeting and presented in TIM/R.54. The objectives of the seminar, scheduled for 15 to 19 September 1980, at Hamar (Norway) are:

1. to examine methods of ensuring the acceptability of finger-jointed sawwood to the purchaser and user, for instance through quality control, and the possibilities for closer harmonization of standards and regulations with a view to extending the use of and international trade in this product;

2. to provide an opportunity for experts from different countries to exchange views and experience on recent developments and prospects in the production and use of finger-jointed sawwood for structural purposes;

3. to formulate recommendations to member countries, the Timber Committee or other appropriate bodies on future activities directed towards extending the contribution which finger-jointing could make towards the rational use of wood.

90. The Committee agreed that basic papers prepared by authors contacted by the secretariat, as suggested in TIM/R.54, should be received by the secretariat by 30 April 1980, to enable them to be processed and issued well before the seminar. In addition, the Committee agreed that each delegation to the seminar should be requested to present a country monograph, prepared according to a standard format and describing the situation as regards finger-jointing in its country. A suggested format would be circulated by the secretariat in the near future. Delegations were requested to make these monographs available to the secretariat (if necessary in draft form) as soon as possible as they could provide valuable background information for papers under item 3 (Marketing aspects) and item 4 (Quality marks, standardization and harmonization).

(b) The general direction of the Committee's activities

91. The Committee took note of a document by the secretariat on the general direction of the Committee's activities, which it had been requested to prepare by the office-holders on the basis of submissions to their meeting in March 1979 by Mr. A. Mades and Mr. F. Palmer, past Chairmen of the Committee (TIM/R.55).

92. The office-holders had come to the conclusion that the Timber Committee's existing programme of work reflected quite well the priorities of member countries and that there was no need to consider any drastic changes in the direction or type of activities being undertaken. The Committee entirely agreed with this view and furthermore considered that the present balance between:

(1) economic (including market) and technical projects; and
(2) projects of a general nature and those dealing with specific problems

was satisfactory.
In deciding to raise this matter with the Committee, however, the office-holders pointed out that there was always scope for improvement and that it might be worthwhile to introduce a system to bring newly emerging problem areas into the programme of work; to assess the priority which existing and new activities should be given; and to ensure that the programme is kept within the limits imposed by availability of resources in member countries and the secretariat.

The Committee considered that the office-holders had correctly identified a major problem which it had to overcome in order to make its activities more effective: the need for fuller dissemination of the technical and economic information which it generated to those who could make use of it. There were a number of causes of this gap in communication and the Committee discussed possible means of helping to bridge it:

1. it agreed with the Steering Committee of the Joint FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers on the value of a unified system for publishing the proceedings of Joint Committee meetings and other technical information;

2. it supported the suggestion that it would be useful to issue a Timber Committee "Yearbook" for wide distribution, which would present the activities of the Committee during the preceding year, as well as plans for the future summarizing the main contents of reports from study projects, papers delivered to seminars and symposia and other information on Timber Committee activities. The Committee invited the secretariat to explore the possibility of preparing such a Yearbook.

3. governments should be invited to give consideration to the possibility of providing regular information on the Committee's activities as well as access to the documentation issued in connexion with them to non-governmental trade and industry organizations, which were often in a good position to forward this information to their members;

4. papers prepared for meetings could be sent to the appropriate technical press to allow their wider distribution.

The Committee requested its office-holders and the secretariat to consider practical steps along the lines mentioned above, and to submit proposals to its thirty-eighth session. To assist in this task the secretariat should consider establishing a small informal advisory group or groups, in the way suggested in para. 12 of TIM/R.55.

The Committee noted with approval that ECE was studying ways to establish a data bank system which would include statistics relevant to the Committee's spheres of activity. It expressed the hope that the system, when operational, would incorporate access possibilities for member countries.

(c) Review and revision of the draft programme of work for 1980-1984

The Committee considered its programme of work on the basis of a draft prepared by the secretariat (TIM/R.56), which took into account the programme it approved at its thirty-sixth session, the resolution, decisions and discussions of the Commission at its thirty-fourth session, the results of meetings of the Committee's subsidiary bodies, as well as its own discussions under other items of the agenda.
98. The Committee took note of the Commission decision E(XXXIV) - Increased effectiveness in the use of ECE resources, in the operative part of which the subsidiary bodies are requested to streamline their programme in the process of concentration and integration by focussing their activities on major substantive problems and to report to the thirty-fifth session of the Commission on measures taken or proposed to give effect to this provision. It considered that the changes to its programme and those of its subsidiary bodies and steps initiated for further streamlining fully corresponded with the Commission's request. In particular, the number of meetings proposed for 1980 and 1981 represented a quite substantial reduction from the number held in 1979.

99. The Committee noted that the situation might arise that problems to which it attached importance had to be excluded from the programme of work for the time being, because of limited resources. If this occurred, a list of such projects could be drawn up which should be reviewed at its annual session so that a given project could be incorporated in the programme if the urgency of the problem increased.

100. The Committee agreed to the proposal of the Joint FAO/ECE Working Party on Forest Economics and Statistics to integrate the project on Trends in the utilization of forest products in specific end-use sectors with the project on End-use statistics. The title of the resulting project 14.5.2.5. should be Utilisation of forest products by end-use sectors.

101. The Committee stressed the importance of the studies of the medium term trends in the capacity of the wood-processing industries (project 14.1.2) and approved the draft questionnaires, as modified by the Joint FAO/ECE Working Party on Forest Economics and Statistics, put forward in TIM/R.56/Add.1. The Committee approved the suggestion of the preparatory meeting for the symposium on wood-based panels in the 1980s: economic and technical perspectives, that a preliminary study of the structure and capacity of the wood-based panels industries be submitted to the symposium, which was scheduled for May 1980. In order that the secretariat should have sufficient time to analyse the replies and prepare a preliminary study, the Committee requested member governments to make every effort to ensure that their replies reached the secretariat by 31 January 1980 at the latest.

102. The Committee approved the suggestion of the Joint FAO/ECE Working Party on Forest Economics and Statistics that the studies on the structure and capacity of the sawmilling industry be carried out every six years, in conjunction with the medium-term surveys of the markets for sawnwood and sawlogs. In view of the difficulties encountered in preparing the first study of the structure and capacity of the sawmilling sector, notably as regards comparability of data between countries, the Committee suggested that an informal team of specialists be convened by the Working Party before the next study is started to prepare recommendations on how the study should be prepared.

103. With regard to the programme of work of the Joint FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers (project 14.3.1.), the Committee noted that the Joint Committee's thirteenth session in May 1980 will draw up proposals for the period 1981-1985. It also noted that the second meeting of its Steering Committee, held in Falun (Sweden) from 8-10 October 1979, had agreed to submit to the Joint Committee certain proposals for concentrating its attention on the most important projects and for limiting the number of meetings to be held annually and the number of teams of specialists to be operative at any given time. The Committee agreed to retain the Joint Committee's present programme pending submission of an up-dated version to its thirty-eighth session, apart from certain organizational matters (changed dates of seminars, etc.) which have been included in annexes II and III of this report.
104. The Committee agreed to integrate the project on Wood preservation with the project on Reduction of waste and development of use of residues in forestry, the wood-processing industries and in forest products utilization; and to alter the title and description of the resulting project (14.4.2.) to put the emphasis on the conservation of the forest resource through improved utilization of forest products and the reduction of waste.

105. The Committee considered that its project on the effects of air-borne pollution on vegetation had been successfully completed by the holding of the symposium in Warsaw (see paras 26 and 30 above) and the project should therefore be terminated. The Committee stressed, however, that this should not be seen as an indication of any lack of interest in what was a most important question which the Committee may decide to take up again in the future, according to the procedure proposed in para. 99 above.

106. The Committee noted that the Byelorussian delegation to the Sessional Committee of ECE had suggested that the Timber Committee undertake work on the purification of waste water from wood-based panels industries. The Committee considered that this question could best be covered by the Committee on Water Problems, in the context of other work on water pollution by industry, and invited that Committee to consider taking up this subject, in co-operation with the Timber Committee.

107. The Committee stressed the great importance of energy questions for the forest sector (see paras 18 to 22 on the results of the seminar on energy aspects of the forest industries and para. 110 on the activities of the Joint FAO/ECE Working Party on Forest Economics and Statistics) and considered that the Committee ought to be concerning itself with these questions. It was essential, however, that the objectives of the Committee's work be clearly defined. It therefore requested the secretariat to prepare for its thirty-eighth session proposals for the Committee's work on energy aspects of the forest industries (project 14.4.3.), including the generation of energy from wood. These proposals should be prepared after consultation with the office-holders and with the members of the team of specialists to be convened by the Joint FAO/ECE Working Party on Economics and Statistics under project 14.5.3.4. They should take into account relevant activities on wood/energy questions being undertaken both within ECE and by other international organizations.

108. In considering the projects covered by the activities of the Joint FAO/ECE Working Party on Forest Economics and Statistics, the Committee noted with satisfaction that major stages in the work on items 14.3.3. - Effects of taxation on forest management and wood supply, 14.5.2.4. - Labour statistics, and 14.5.2.5. - Utilization of forest products by end-use sectors, were completed or nearing completion and agreed with the Working Party's recommendation that proposals for further work in these areas would be formulated only when need and clear priority was established by the Working Party.

109. The Committee considered that the description in the programme of work of studies of selected economic problems: 14.5.3.1. relating to the fuller use of the biomass, 14.5.3.2. relating to afforestation and reforestation and 14.5.3.3. relating to the introduction of new machines and equipment, may require further refinement. It was emphasized that the initiation of work on these projects depended on countries being willing to make experts available to lead and contribute to the work. It was suggested that the teams of specialists themselves be responsible for proposing clarifications to the description of the projects.
110. The Committee considered that the project 14.5.3.4. - Economic and statistical studies on wood/energy questions should be accorded high priority in the Working Party's activities and requested that the preliminary work of the team of specialists should be available to the next meeting of the office-holders to assist in formulating the Committee's approach to the whole question (see para. 107). The Committee noted the relevance of these activities to the work of the Senior advisers to ECE Governments on Energy and to FAO preparatory work for the United Nations Conference on New and Renewable Sources of Energy to be held in 1981. It requested the team of specialists to consider urgently the contribution that could be made to the latter.

111. In supporting the inclusion of item 14.5.4. - Transfer of economic and statistical methods and experience in the forest and forest products sector, the Committee noted that the FAO European Forestry Commission had expressed great interest in this project, and emphasized its own support for work in this direction.

112. Under project 14.5.5. - Dissemination and exchange of general information and experience - the Committee was informed of the plans for the study tour in the United States of America scheduled for 1981, which it was provisionally planned should visit forest and forest industry enterprises on the West Coast of the United States of America. It invited other member countries, especially those which had not already acted as host to a Timber Committee study tour, to consider the possibility of organizing a tour in 1982 or subsequent years.

113. On the basis of these discussions, the Committee approved its programme of work for 1980-1984 as set out in annexes II and III.

Other business (Item 11 of the agenda)

114. The Committee welcomed the fact that Japan, a major trading nation on world forest products markets, had been represented at its thirty-seventh session and hoped that Japan would continue to take part in the Committee's work, notably by attending its annual sessions. It noted with interest that the Japanese Government was revising the "Basic Plan Regarding Forest Resources" and "Long-Range Prospect regarding Demand and Supply of Important Forest Products". It considered that this study would be of great interest to the Committee and requested the secretariat to explore with the Japanese authorities the possibility of their presenting the results of the study to the Committee's thirty-eighth session.

115. The delegation of France showed a film "Du bois dont on fait des charpentes", and the delegation of the USSR one entitled: "Forest industry and technical progress". The delegation of the Netherlands gave an audio-visual presentation of the tropical timber trade. The Committee thanked these delegations for their most interesting films and presentation.

Adoption of the report of the Committee's session (Item 12 of the agenda)

116. The draft report, presented by the secretariat, was adopted, with some modifications which have been incorporated in the present document.

Date of next session

117. The Committee agreed that its next session should be held from 13 to 17 October 1980, subject to the availability of conference services for that period.
**Annex I**

Europe (excl. USSR): Summary table of market forecasts for 1979 and 1980 (million m³)

<table>
<thead>
<tr>
<th></th>
<th>Domestic requirements</th>
<th>Production</th>
<th>Imports</th>
<th>Exports</th>
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</thead>
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<tr>
<td>Sawn softwood</td>
<td>74.63</td>
<td>76.94</td>
<td>76.73</td>
<td>67.46</td>
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<td>Coniferous logs</td>
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<td>120.91</td>
<td>123.03</td>
<td>115.29</td>
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<tr>
<td>- temperate zone</td>
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<td>..</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>- tropical</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Hardwood logs</td>
<td>40.79</td>
<td>41.86</td>
<td>42.27</td>
<td>35.11</td>
</tr>
<tr>
<td>- temperate zone</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>- tropical</td>
<td>..</td>
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<td>..</td>
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<tr>
<td>Particle board</td>
<td>23.13</td>
<td>24.02</td>
<td>24.01</td>
<td>23.18</td>
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<tr>
<td>Plywood</td>
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<td>5.27</td>
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<td>Fibreboard</td>
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<td>4.85</td>
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<td>Fullwood</td>
<td>153.18</td>
<td>166.64</td>
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<td>- roundwood, coniferous</td>
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<td>30.16*</td>
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<td>- residues, chips and particles</td>
<td>43.15*</td>
<td>45.10*</td>
<td>..</td>
<td>45.89*</td>
</tr>
</tbody>
</table>

a/ Including USSR
TIMBER COMMITTEE PROGRAME OF WORK FOR 1980-1984

WORK AREA 14.1: MEDIUM AND LONG-TERM TRENDS AND PERSPECTIVES


Description: The Committee will keep under review long-term trends in production, trade, consumption and prices of forest products, comparing them with projections made in the long-term study, both to check the accuracy of the analyses presented in the study and in order to provide early warning of changes in trends, thus enabling Governments to review their long-term forest policies in the light of recent developments.

Method of work: The Committee will compare, on a continuing basis, real trends with the projections of the long-term study, as an integral part of its analyses of specific aspects of the forest products sector (notably under projects 14.1.2., 14.1.3., 14.2.1.). In addition, the secretariat will prepare an overall study which will compare real trends up to 1980 with projections.

14.1.2. Medium-term trends in the structure and capacity of the wood-processing industries

14.1.2.1. The wood-based panels industries

Description: The Committee will review the structure and capacity of the wood-based panels industries in order to enable Governments to form their own industrial policies for the wood-based panels sector in the light of information on international conditions.

Method of work: The Committee will decide at its thirty-eighth session on the scope and orientation of its activities in this field in the light of the survey carried out in 1979/80 based on the simplified questionnaire drawn up by the FAO/ECE Working Party on Forest Economics and Statistics.

14.1.2.2. The sawmilling industry

Description: The Committee will review the structure and capacity of the sawmilling industry in order to enable Governments to form their policies for the sawmilling industry in the light of information on international conditions.

Method of work: The Committee will undertake surveys at six-yearly intervals (next survey in 1984). An informal team of specialists will be convened by the Joint FAO/ECE Working Party on Forest Economics and Statistics before the 1984 study is started to prepare recommendations on how the study should be prepared.
14.1.3. Medium-term trends in the markets for specific forest products

Description: The Committee will review medium-term (3-5 years) trends in the production, consumption, trade and prices of major forest products so that Governments may be continuously informed of structural trends in the forest products markets of the ECE region.

Method of work: The secretariat will prepare one study annually, on a three-year rotation of subjects, as follows: Sawmwood and sawlogs: 1981, 1984, etc.; pulpwood (including residues and chips), pitprops and miscellaneous roundwood: 1982, 1985, etc.; wood-based panels: 1980, 1983, etc. The secretariat will prepare at intervals as will be decided, a review of trends in roundwood production and supply.

14.1.4. Trends, prospects and policies in southern Europe

Description: The forest and forest industry policy and environmental problems facing countries in the Mediterranean area will be reviewed in the light of the long-term outlook for their forest economies, as depicted in European Timber Trends and Prospects, 1950 to 2000.

Method of work: The Committee will convene an ad hoc meeting in (year to be decided) on the production and marketing of products of specific interest to Mediterranean forestry, including cork and resin; and other such meetings, as the need is identified. All activities under this project will be carried out in cooperation with the FAO European Forestry Commission.

WORK AREA 14.2: CURRENT MARKET DEVELOPMENTS AND SHORT-TERM PROSPECTS, INCLUDING PROBLEMS RELATING TO INTERNATIONAL TRADE

14.2.1. Review of production, trade, consumption and prices of forest products

Description: The Committee will analyse on a continuous basis, short-term trends in the production, trade and prices of forest products and forecast short-term prospects, with a view to providing Governments and the forest products sector with accurate and up-to-date information and assessments, necessary for an orderly development of the supply/demand mechanism.
Method of work: The secretariat will prepare and publish annually a review of trends in forest products markets over the previous year, based on data supplied by Governments in connexion with project 14.5.1. The secretariat will present to the Committee's annual session the most recent available data on trends in the market for forest products, obtained from questionnaire returns, with a brief analysis of the situation. The Committee will review, at its annual session, short-term trends and prospects in the production, trade and prices of major forest products (sawn softwood, hardwoods, including tropical, pulpwood, coniferous logs and wood-based panels) on the basis of estimates prepared by delegations, for the current and following years. After the session the secretariat will prepare and publish an analysis of short-term market trends and prospects, based on the Committee's discussions.

14.2.2. Rationalization of the flow of forest products from the forest to the consumer, including transport and handling problems

Description: The Committee will review the distribution chain for forest products from the forest to the consumer, including transport and handling problems, and identify areas where it might recommend any action which it considers necessary to rationalize the flow of products and to increase efficiency with a view to facilitating international trade.

Method of work: The Committee's co-ordinator on transport and handling problems will make recommendations to the Committee for work in this field, as and when appropriate.

14.2.3. Review of standardization activities

Description: The Committee will review at its annual session needs and priorities for standardization in the field of forest products as well as progress in its own standardization projects (14.2.4., 14.2.5., 14.2.6.). On the basis of this review, it will decide what activities it should undertake, with a view to facilitating international trade in forest products by removing non-tariff barriers, and to furthering the rational and economic use of wood.

Method of work: The Committee will base its annual review on a report, and if necessary, recommendations by its co-ordinator in the field of standardization.
14.2.4. **Standardization of stress grading of coniferous sawn timber**

**Description:** The Committee will encourage the application of the ECE recommended standard by incorporation of its provisions into national standards, and undertake any further work necessary for the refinement of the recommended standard, with a view to ensuring the rational and economic use of, and to facilitating trade in, coniferous sawn timber.

**Method of work:** The Committee will convene an informal team of experts to collect information and make proposals for research programmes, quality control programmes and marking systems for stress graded coniferous sawnwood. The informal team will, among other things, draft a set of guidelines for countries developing quality control programmes. The Committee will organize training courses to exchange experience on the application of the recommended standard and for the training of those responsible for sawnwood grading. An ad hoc meeting will be convened after 1980 to review and, if necessary, update the recommended standard. (Work to be linked to project 14.2.5).

14.2.5. **Standardization of finger-jointing in structural coniferous sawn timber**

**Description:** The Committee will encourage the application of the ECE recommended standard on finger-jointing in structural coniferous sawn timber, notably by incorporation of its provisions into national standards, and undertake any further work necessary for the refinement of the recommended standard, with a view to ensuring the rational and economic use of, and to facilitating trade in, structural finger-jointed coniferous sawn timber.

**Method of work:** The Committee will convene an informal team of experts to collect information and make proposals about research programmes, quality control programmes and marking systems for finger-joints in structural coniferous sawnwood. The Committee will also organize seminars to exchange experience on the application of the recommended standard. An ad hoc meeting will be convened after 1980 to review and, if necessary, update the recommended standard. (Work to be linked to project 14.2.6).

14.2.6. **Reduction of the number of standard dimensions of sawnwood entering international trade**

**Description:** The Committee will formulate proposals for the reduction of the number of standard dimensions of sawnwood entering international trade, on the basis of ISO International Standard 3179 and in collaboration with ISO, with a view to facilitating international trade in sawnwood.

**Method of work:** The Committee will keep under review progress in the work being undertaken by other organizations with a view to collaborating in such work as and when it considers it appropriate.
14.2.7. **Classification and definitions of forest products**

**Description:** The Joint FAO/ECE Working Party on Forest Economics and Statistics, in co-operation with the Conference of European Statisticians, will revise the FAO Classification and Definitions of Forest Products, with a view to ensuring that it is in harmony with international multi-sector classifications and definitions (e.g. the CCC Harmonized System, ICGS, SITC) and developments in technology and industrial and trade practice and the appearance of new products.

**Method of work:** An ad hoc meeting will be convened to consider and incorporate proposals by countries and competent organizations for modifications to the FAO Classification and submit a draft revised version to the thirteenth session of the Joint Working Party.

**14.2.8. Economic and technical developments in finger-jointing of sawnwood**

**Description:** The Committee will examine economic and technical developments in the production and utilization of finger-jointed sawnwood as a means of rationalizing the use of wood.

**Method of work:** A seminar on the production, marketing and use of finger-jointed sawnwood will be held in Norway in 1980.

**WORK AREA 14.3: SELECTED ECONOMIC, TECHNOLOGICAL AND MANAGERIAL PROBLEMS**

**14.3.1. Forest working techniques and training of forest workers**

This project is covered by the activities of the Joint FAO/ECE/ILC Committee on Forest Working Techniques and Training of Forest Workers, which normally meets biennially (1980, 1982, 1984, etc.). Its task is to foster international collaboration on technical, economic and organizational aspects of forest working techniques and training of forest workers in logging and other forest operations; special attention is given to increasing the efficiency of labour, the reduction of the physical efforts of the worker, prevention of accidents, reduction of waste and the establishment of an adequate balance between technical, social and economic requirements and protection of the environment.

The project components are set out below under three main headings:

1. Silvicultural operations and general management aspects;
2. Wood harvesting and transport; and
3. Human aspects of forest operations.
14.3.1.1. **Silvicultural operations and general management aspects**

14.3.1.1.1. **Development and use of machinery and methods for stand establishment, including planting stock and equipment**

**Description:** The Joint Committee will promote the exchange of information and further rational regeneration methods which do not damage the forest ecosystem by regularly reviewing machines, techniques and planting stock applied in afforestation and reforestation, with emphasis on site clearing, soil preparation and planting.

**Method of work:** Seminars and/or study tours will be organized at 4-year intervals (1980, 1984, etc.). A seminar on afforestation and reforestation machines and techniques will be held in Spain in 1980.

14.3.1.1.2. **Forest fire prevention and control**

**Description:** The Joint Committee will examine techniques and equipment used in forest fire control, as well as preventive measures, with a view to assisting Governments in these fields.

**Method of work:** A seminar will be held in Poland in 1981 and another in Portugal in 1983.

14.3.1.1.3. **Methods of measurement of labour productivity**

**Description:** The Joint Committee will review methods of assessing productivity of men and machines, and methods of measurement of standard times whereby to determine the relationship between changes in labour input and machine input and assess the effects and implications of replacing labour by machines.

**Method of work:** A team of specialists will discuss methods of measuring machine input in forestry operations, draw up proposals for future work by the Joint Committee in the field of labour productivity and submit them to the thirteenth session of the Joint Committee.

14.3.1.1.4. **Planning and management of forest operations**

**Description:** The Joint Committee will study methods of planning forest operations, especially in the long term, taking into account the impact of environmental and social constraints on the planning and method of work; it will also examine methods of assessing technical and economic accessibility of forest resources, so as to assist Governments in the planning and rational utilization of the resource.

**Method of work:** A seminar on (topic to be proposed by co-ordinators for decision by thirteenth session) will be held in the Netherlands (subject to confirmation) in 1981, preceded by a preparatory meeting of a team of specialists.

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**Annex II, page 6**

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<th>Description</th>
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**Estimated duration (in years)**

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14.3.1.1.5. Methods of payment

Description: The Joint Committee, in collaboration with the FAO/ECE Working Party on Forest Economics and Statistics, will review methods of payment of forest workers in order to show their effect on labour supply, productivity levels and rate of mechanization.

Method of work: A team of specialists will collect information and prepare a report, taking into account the findings of the study on labour statistics carried out by the FAO/ECE Working Party on Forest Economics and Statistics. The report will be submitted to a seminar on the effects of methods of payment on labour productivity and the conditions of work and life of forest workers to be held in .... 1/ in 1982.

14.3.1.1.6. Review of standardization activities in the field of forestry machinery

Description: The Joint Committee will keep under review standardization activities in the field of forest machinery to assist countries in the development and safety in use of such equipment.

Method of work: The Joint Committee will review at each session, on the basis of a report which ISO should be invited to submit, standardization work being carried out, and will maintain active co-operation with the responsible ISO sub-committee.

14.3.1.1.7. Standardization of concepts and terms used by the Joint Committee

Description: The Joint Committee will regularly review the definitions of currently used technical and economic concepts and terms with a view to facilitating exchange of information on an international level during its meetings and on other occasions.

Method of work: The co-ordinators and/or team-leaders will prepare, with the assistance of the secretariat, a limited list of basic concepts and terms in the three official languages for each of the seminars convened by the Joint Committee, in order to ease communication during the meeting and to have them discussed, approved and then disseminated within the framework of the Joint Committee.

1/ Host country to be decided.
14.3.1.2. Wood harvesting and transport

14.3.1.2.1. Development and use of logging machinery

Description: The Joint Committee will keep under review trends and prospects in the development and use of logging machinery taking into account specific conditions and cost/price relationships so as to encourage rational logging methods in flat, hilly and mountainous regions from the economic, ergonomic and environmental points of view.

Method of work: Seminars on selected items will be held at intervals of not more than 2 years: in 1983, in the German Democratic Republic on silvicultural, technological, economic and other problems connected with the mechanization of thinning operations.

14.3.1.2.2. Maintenance of forest machinery

Description: The Joint Committee will promote the exchange of information on systems of maintenance of forest machinery, and further the rational use of such machines.

Method of work: A seminar on maintenance of forest machinery in large and small-scale operations will be held in 1981 in Sweden.

14.3.1.2.3. Location and methods of primary roundwood conversion

Description: The Joint Committee will determine optimum technical, economic and organizational solutions in the field of primary roundwood conversion by reviewing the location, management and methods of roundwood conversion.

Method of work: A special discussion will be organized at the thirteenth session of the Joint Committee, based on a report by a team of specialists.

14.3.1.2.4. Terrain classification from the wood harvesting point of view

Description: The Joint Committee will review studies on terrain classification and forest accessibility, with a view to facilitating international comparisons on accessibility of forest resources.

Method of work: A team of specialists will prepare a report on existing terrain classifications and those under preparation, including the work of the European Economic Community and IUFRO, to be submitted to the thirteenth session of the Joint Committee in 1980, which will decide on further action.
14.3.1.2.5. **Compatibility of harvesting methods and equipment with silviculture and the environment**

**Description:** The Joint Committee will review harvesting methods and equipment and compare these with the methods applied in silviculture so as to determine compatibilities and incompatibilities, taking into account environmental aspects.

**Method of work:** A preliminary descriptive list of harvesting methods and equipment will be prepared by a team of specialists from the point of view of compatibility with silvicultural methods and the environment for submission to the Joint Committee at its thirteenth session in 1980, when further action will be decided.

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14.3.1.2.6. **Harvesting of wood for energy purposes**

**Description:** The Joint Committee will review methods and equipment suitable for the production and harvesting of wood specifically destined for energy production, so as to determine the potential of the forest or special plantations to contribute economically to total energy supply.

**Method of work:** A report will be prepared by a team of specialists and submitted to the Joint Committee at its thirteenth session in 1980.

14.3.1.3. **Human aspects of forest operations**

14.3.1.3.1. **Vocational training in forestry**

**Description:** The Joint Committee will assist Governments in planning their national vocational training policies by keeping under review developments and trends in vocational training in forestry to raise the efficiency of forest operations and improve working practices with regard to safety and health.

**Method of work:** A seminar will be organized every second year on a selected problem: in 1980 in Norway, on vocational training and extension services for small-scale forest owners and farmers; in 1982 (subject to confirmation) in the United Kingdom, on the selection of machine operators and assessment of their suitability for specific jobs; in (year to be decided), in .... 1/ on vocational training problems specific to southern Europe.

1/ Host country to be decided.
14.3.1.3.2. Report on vocational training systems

Description: The Joint Committee will help Governments to review their national vocational training systems in the light of the latest developments.

Method of work: The ILO will prepare and circulate a report on the basis of returns from the 1977 enquiry; it will be updated and supplemented in 1982.

14.3.1.3.3. Ergonomic problems applied to forestry

Description: The Joint Committee will help Governments in their national health and employment planning by keeping under review developments and trends in ergonomics applied to forestry, promoting safer working habits, preventing occupational injuries and diseases, increasing work performance and forest workers' satisfaction with their jobs.

Method of work: A seminar or training course will be organized every second year on a selected problem in the field of ergonomics applied to forestry (i.e., 1981, 1983, etc.). In 1981, a seminar will be held on applied ergonomics and safety and health in highly mechanized logging operations (in collaboration with IUFRO in Canada (subject to confirmation).

14.3.1.3.4. Ergonomic problems related to chain saws and brush saws

Description: The Joint Committee will study problems related to chain saws and brush saws to follow up the work carried out in 1974-76 by the ad hoc group of experts on noise and vibration in power saws; it will study and improve working methods and recommend safety rules, collect information on occupational diseases, establish measurement methods and standards of hygiene.

Method of work: A team of specialists will carry out this work in close collaboration with ILC and ISO and will submit a report to the thirteenth session of the Joint Committee.

14.3.1.3.5. Vocational rehabilitation of forest workers

Description: The Joint Committee will provide Governments with guidance in connexion with their services to rehabilitate injured, disabled or older forest workers.

Method of work: A team of specialists, with the collaboration of ILO, will collect information on possibilities and methods of rehabilitation of injured, disabled or older forest workers and submit it in the form of a report to the seminar in 1981 on applied ergonomics and safety and health in highly mechanized logging operations (see sub-section 14.3.1.3.3.).
14.3.1.3.6. Social problems of forest workers

Description: The Joint Committee will examine forest workers' social status in comparison with that of other workers in the light of social and economic developments that have occurred in various countries in recent years and of future trends, in order to assess the problems created through the replacement of man by machine in forestry; the necessity to absorb unemployed labour in rural areas; the social condition of migratory versus locally resident labour, etc. This work aims at helping Governments solve recurring structural employment problems and those connected with the difficulty of finding adequate labour in forestry.

Method of work: A seminar will be organized, in collaboration with ILO and possibly IUFRO, preceded by an enquiry and/or a preparatory meeting to define the scope of the subject to be treated.

14.3.2. Utilization of tropical hardwoods

Description: The Committee will review the utilization of tropical hardwoods with a view to analysing patterns and trends in the demand for these products and to identifying opportunities for expanding trade with developing countries.

Method of work: The secretariat will explore with the secretariats of UNCTAD and FAO the possibilities for co-operation between the Timber Committee, UNCTAD and FAO on the markets for tropical timber and report back to the Committee's thirty-eighth session.

14.3.3. Effects of taxation on forest management and wood supply

Description: The Committee will review the effects of national taxation systems on forest management and wood supply with a view to assessing how these systems affect the supply/demand balance for forest products in the ECE region and the structure of international trade.

Method of work: The study undertaken for the Joint FAO/ECE Working Party on Forest Economics and Statistics will be revised and published.
14.3.4. Economic and technical developments in the furniture industry

Description: The Committee will further the exchange of information on economic and technical developments in the furniture industry, with a view to assessing in quantitative and qualitative terms the use of forest products in that industry and the trends and prospects in the demand for forest products for that sector.

Method of work: Possible further work to be decided upon by the thirty-eighth session in the light of the report of the symposium on economic and technical developments in the furniture industry.

14.3.5. Modernization in the wood-based panels industries

Description: The Committee will further the exchange and dissemination of scientific, technological and economic information on modernization in the wood-based panels industries.

Method of work: A symposium on Wood-based panels in the 1980s: economic and technical perspectives will be held in Finland in 1980. The Committee's thirty-eighth session will decide upon future work in the light of the results of the symposium.

14.3.6. Review of progress made in the chemical processing of wood (other than for pulp and paper) and the potential of the use of wood for chemical products

Description: In conjunction with the Chemical Industries Committee, the Committee will keep under review, from the technical and economic point of view, progress made in the chemical processing of wood (other than for pulp and paper) with a view to improving the utilization of by-products of the wood processing industries, and to assessing potential demand from the chemical industry for wood raw material, as well as the effect any increase would have on the supply/demand balance for forest products in the ECE region and the availability of raw material for traditional wood-using industries.

Method of work: A special lecture will be given to the Committee's thirty-eighth session, on the basis of which it will decide on further action.

WORK AREA 14.4: ENVIRONMENTAL AND RESOURCE CONSERVATION PROBLEMS

(All the Committee's activities in this work area will be carried out in co-operation with the Senior Advisers to ECE Governments on Environmental Problems).
14.4.1. Quantification and evaluation of the environmental benefits of forests

**Description:** The Joint FAO/ECE Working Party on Forest Economics and Statistics will examine methods of quantifying and evaluating the environmental benefits of forests with a view to assessing forests' contribution to society, to calculating compensation for the environmental services of forests and to facilitating comparisons between countries.

**Method of work:** A draft enquiry on environmental and non-wood uses of forests will be finalized after being reviewed by countries. Countries will be invited to submit results of studies quantifying the benefits of non-wood uses of forests for consideration by the thirteenth session of the Working Party, which will decide on further work in this field. Project linked with project 14.5.2.3.

14.4.2. Conservation of the forest resource through the improved utilization of forest products and the reduction of waste

**Description:** The Committee will assess ways of conserving the forest resource by reducing the volume of forestry and wood-working residues and expanding their use, by improving and rationalizing the utilization of forest products, and by increasing their durability through wood preservation.

**Method of work:** A symposium will be held in the USSR in 1982. A preparatory meeting for the symposium will take place in 1980 to draw up proposals for the scope, objectives and programme.

14.4.3. Energy aspects of the forest industries

**Description:** The Committee will study energy use in forestry, the wood-processing industries and the use of forest products, with a view to identifying means to improve energy efficiency.

**Method of work:** The secretariat will present to the Committee's thirty-eighth session proposals for future work by the Committee in this field, prepared after consultation with the office-holders and the members of the team of specialists convened under project 14.5.3.4.
WORK AREA 14.5: COLLECTION, EXCHANGE AND DISSEMINATION OF INFORMATION, INCLUDING IMPROVEMENT AND HARMONIZATION OF STATISTICS (in CO-OPERATION WITH FAO)

14.5.1. Timber Bulletin for Europe

Description: The Committee will collect statistics on production, trade and prices of forest products, with a view to providing Governments and the forest products sector with data on the basis of which to formulate policies and make decisions.

Method of work: The secretariat will publish, twice a year, the Timber Bulletin for Europe, containing quarterly statistics on production, trade and prices of forest products, collected from Governments by means of quarterly questionnaires.

14.5.2. Selected problems of economics and statistics of forestry and forest products

This project, together with projects 14.5.3, 14.5.4, and 14.5.5 (part), is covered by the activities of the Joint FAO/ECE Working Party on Forest Economics and Statistics which normally meets biennially (1981, 1983, etc.). It co-operates with the Conference of European Statisticians.

14.5.2.1. Organization and periodicity of statistical data collection and dissemination

Description: The Working Party will review periodically the Committee's programme of collection and dissemination of statistical data, to ensure that it corresponds with the needs of Governments.

Method of work: Periodic reviews will be undertaken by the Working Party, which will formulate proposals for improving the Committee's programme of collection and dissemination of statistical data with regard to its organization, method of collection, periodicity, and the improvement of the accuracy and comparability of data obtained from and used by Governments.

14.5.2.2. Conversion factors

Description: The Working Party will review the conversion factors for forest products applicable to individual countries, in order to facilitate international comparison of yields and to ensure that the conversion factors used by the secretariat in its analyses reflect current technology.

Method of work: The Working Party will review at four-yearly intervals (1981, 1985, etc.) conversion factors communicated by Governments in reply to a questionnaire.
14.5.2.3. Forest resource analysis

Description: The Working Party will review methods of forest inventory used by Governments and by the Secretariat to ensure that all parameters relevant to measuring actual productive potential of the forest, as well as parameters measuring change, both for wood and non-wood benefits, are taken into account and that the methods adopted correspond as closely as possible to the needs of all users.

Method of work: Outlines of enquiries on forest resources for wood and fibre production and on environment and non-wood uses of forests (see project 14.4.1.) will be submitted to countries to ascertain the availability of data and the form in which they are available. Draft enquiries will be prepared on the basis of countries' replies and submitted to the thirteenth session of the Working Party, before being finalized and despatched to countries.

14.5.2.4. Labour statistics

Description: The Working Party, in co-operation with the Joint FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers, will study labour input, average wage rates and earnings in forestry, with a view to providing more data on cost trends and a basis for comparison of employment and earnings.

Method of work: The study on forestry labour statistics will be revised after countries have been invited to check, update and complete their data. The final version of the study will be published in 1980. The thirteenth session of the Working Party will consider revision of the study at regular intervals.

14.5.2.5. Utilization of forest products by end-use sectors

Description: The Working Party will collect information on the utilization of forest products by end-use sectors and undertake analyses of utilization trends and patterns which will be submitted to the Timber Committee to form part of its continuing analysis of medium- and long-term market developments, with a view to providing Governments with information necessary for the elaboration of their forest products utilization policies.

Method of work: End-use statistics will be collected periodically by means of enquiries and analyses carried out by the Working Party, which will consider at its fourteenth session appropriate directions for activities in this field and methods of work.
14.5.2.6. Forest fire statistics

Description: The Working Party will improve the exchange of information on forest fires, their causes and methods of prevention and protection and the costs involved.

Method of work: The Working Party will review the results of an enquiry at its thirteenth session and draw up proposals concerning the regular collection of statistics in this field.

14.5.3. Studies of selected economic problems

14.5.3.1. Economic aspects of the fuller use of the forest biomass

Description: The Working Party will study the economic aspects of the fuller use of the forest biomass with a view to determining the potential for the forest resource to meet the demand for raw material from the different wood-using industries and consumption sectors.

Method of work: A team of specialists will collect and review information in this field and present a report to the thirteenth session of the Working Party.

14.5.3.2. Economic aspects of afforestation and reforestation

Description: The Working Party will study the economic aspects of afforestation and reforestation with the object of comparing the efficiency of different methods and the relative costs and returns in different countries under different conditions.

Method of work: Taking account of the relevant work of the Joint FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers and collaborating where appropriate (see project 14.3.1.1.1.), a team of specialists will collect and review information on the economics of afforestation and reforestation and present a report to the thirteenth session of the Working Party.

14.5.3.3. Economic aspects of the introduction of new forest machines and equipment

Description: The Working Party will study the economic aspects of the introduction of new forest machines and equipment with the object of assessing their productivity and return on investment in different countries and under different operating conditions.

Method of work: Taking account of the relevant work of the Joint FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers and collaborating where appropriate (see project 14.3.1.2.1.), a team of specialists will collect and review information on the economics of introducing new machines and equipment into forestry and report to the fourteenth session of the Working Party.
14.5.3.4. Economic and statistical studies on wood/energy questions

Description: The Working Party will examine the generation of energy from wood and energy consumption by the forest industries, with a view to assessing the effects of developments in the energy field on the forest sector and the contribution of wood to national energy balances, thereby to provide Governments with information needed for policy-formulation in this area.

Method of work: A team of specialists will assess the availability of statistical and other information on these subjects as well as work in hand at the national and international level and formulate recommendations for the Working Party at its thirteenth session.

14.5.4. Transfer of economic and statistical methods and experience in the forest and forest products sector

Description: The Working Party will contribute to the building up of statistical services in countries inside and outside the ECE region through the transfer of know-how and experience in methods of data collection, assembly and dissemination in the forest and forest products sector.

Method of work: A team of specialists will draw up proposals for the consideration of the Working Party's thirteenth session.

14.5.5. Dissemination and exchange of general information and experience

Description: The Committee will further the dissemination and exchange of information and experience on selected themes within its area of competence, by dissemination of statistical and other information on countries' forestry and forest products sector, and by organizing annual study tours at the invitation of the countries concerned with a view to making available to Governments and the forest products sector experience gained in individual countries.

Method of work: A study tour will be held in the USA in 1981. Country forest and forest products profiles will be prepared by the secretariat, in collaboration with the Governments of countries concerned, and published at five- to six-yearly intervals.

1/ Host countries to be decided for the years from 1982 to 1984 inclusive.
Annex III
Tabular presentation of Timber Committee programme of work 1980-1984

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<td>Sawmilling industry (as determined by Committee)</td>
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<td>Sawmwood and sawlogs</td>
<td>Pulpwod, pitprops and miscellaneous roundwood</td>
<td>Wood-based panels</td>
<td>Sawmwood and sawlogs</td>
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Tabular presentation of Timber Committee programme of work 1980-1984

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<td><strong>WORK AREA 14.3: SELECTED ECONOMIC, TECHNOLOGICAL AND MANAGERIAL PROBLEMS</strong></td>
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<td>14.3.1.1.</td>
<td>Joint FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers</td>
<td>Thirteenth session in Spain</td>
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<td>Fourteenth session in Norway</td>
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<td>Fifteenth session in 1/</td>
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<td>14.3.1.1.1.</td>
<td>Silvicultural operations and general management aspects</td>
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<td>14.3.1.1.1.</td>
<td>Development and use of machinery and methods for stand establishment, including planting stock and equipment</td>
<td>Seminar on afforestation and reforestation machines and techniques in Spain</td>
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<td>14.3.1.1.2.</td>
<td>Forest fire prevention and control</td>
<td>Seminar in Poland</td>
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<td>14.3.1.1.3.</td>
<td>Methods of measurement of labour productivity</td>
<td>Report to Joint Committee by team of specialists</td>
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<td>14.3.1.1.4.</td>
<td>Planning and management of forest operations</td>
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<td>Seminar in 1/ on a topic to be proposed by co-ordinators to the thirteenth session</td>
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<td>14.3.1.1.5.</td>
<td>Methods of payment</td>
<td>Preparation of report by team of specialists for submission to seminar in 1/ in 1982</td>
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<td>Seminar on the effects of methods of payment on labour productivity and the conditions of work and life of forest workers in 1/</td>
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<td>14.3.1.1.6.</td>
<td>Review of standardization activities in the field of forestry machinery</td>
<td>Review by Joint Committee</td>
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<td>14, 3, 1, 1, 7.</td>
<td>Standardization of concepts and terms used by the Joint Committee</td>
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<td>Terms and definitions to be prepared in connexion with each seminar</td>
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<td>14, 3, 1, 2,</td>
<td>Wood harvesting and transport</td>
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<td>Development and use of logging machinery</td>
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<td>14, 3, 1, 2, 2.</td>
<td>Maintenance of forest machinery</td>
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<td>Seminar in the German Democratic Republic on silvicultural, technologically, economic and other problems connected with the mechanisation of thinning operations</td>
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<td>14, 3, 1, 2, 3.</td>
<td>Location and methods of primary roundwood conversion</td>
<td>Special discussion at the 13th session of the Joint Committee based on report by team of specialists</td>
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<td>14, 3, 1, 2, 4.</td>
<td>Terrain classification from the wood harvesting point of view</td>
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<td>Report to Joint Committee by team of specialists</td>
<td>As decided by Joint Committee</td>
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<td>14, 3, 1, 2, 5.</td>
<td>Compatibility of harvesting methods and equipment with silviculture and the environment</td>
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<td>Report to Joint Committee by team of specialists</td>
<td>As decided by Joint Committee</td>
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<td>14, 3, 1, 2, 6.</td>
<td>Harvesting of wood for energy purposes</td>
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<td>Report to Joint Committee by team of specialists</td>
<td>As decided by Joint Committee</td>
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<td>14, 3, 1, 3,</td>
<td>Human aspects of forest operations</td>
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<td>14, 3, 1, 3, 1.</td>
<td>Vocational training in forestry</td>
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<td>14, 3.1, 3.2.</td>
<td>Report on vocational training systems</td>
<td>Report by ILO on basis of 1977 returns</td>
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<td>14, 3.1, 3.3.</td>
<td>Ergonomic problems applied to forestry</td>
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<td>Seminar in Canada (subject to confirmation) on applied ergonomics and safety and health in highly mechanized logging operations (in collaboration with IUFRO)</td>
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<td>14, 3.1, 3.4.</td>
<td>Ergonomic problems related to chain saws and brush saws</td>
<td>Report to Joint Committee by team of specialists</td>
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<td>14, 3.1, 3.5.</td>
<td>Vocational rehabilitation of forest workers</td>
<td>Report by team of specialists</td>
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<td>14, 3.1, 3.6.</td>
<td>Social problems of forest workers</td>
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<td>14, 3.2.</td>
<td>Utilization of tropical hardwoods</td>
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<td>As decided at thirty-eighth session</td>
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<td>14, 3.3.</td>
<td>Effects of taxation on forest management and wood supply</td>
<td>Revision and publication of study</td>
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<td>14, 3.4.</td>
<td>Economic and technical developments in the furniture industry</td>
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<td>14, 3.5.</td>
<td>Modernization in the wood-based panels industries</td>
<td>Symposium in Finland</td>
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<td>14, 3.6.</td>
<td>Review of progress made in the chemical processing of wood (other than for pulp and paper) and the potential of the use of wood for chemical products</td>
<td>Special lecture</td>
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<td>14.4.1</td>
<td>Quantification and evaluation of the environmental benefits of forests</td>
<td>(Work to be linked with project 14.5.2.3.)</td>
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<td>Symposium in USSR on</td>
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<td>14.4.2</td>
<td>Conservation of the forest resource through improved utilization of forest products and the reduction of waste</td>
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<td>(topic to be defined)</td>
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<td>14.4.3</td>
<td>Energy aspects of the forest industries</td>
<td></td>
<td>As decided by thirty-eighth session, on basis of proposals by secretariat</td>
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**WORK AREA 14.5: COLLECTION, EXCHANGE AND DISSEMINATION OF INFORMATION, INCLUDING IMPROVEMENT AND HARMONIZATION OF STATISTICS**

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<tr>
<td>14.5.1</td>
<td>Timber Bulletin for Europe</td>
<td>Continuous (twice yearly publication)</td>
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<td>14.5.2.1</td>
<td>Organization and periodicity of statistical data collection and dissemination</td>
<td>Continuous, Review at regular session of Joint Working Party</td>
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<td>14.5.2.2</td>
<td>Conversion factors</td>
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<td>Review at thirteenth session</td>
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<td>14.5.2.3</td>
<td>Forest resource analysis</td>
<td>Preparation of draft enquiries</td>
<td>Circulation of enquiries after approval of Working Party</td>
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<td>14.5.2.4</td>
<td>Labour statistics</td>
<td>Revision and publication of study</td>
<td>Review at thirteenth session on basis of recommendation by team of specialists</td>
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<td>14.5.2.5</td>
<td>Utilization of forest products by end-use sectors</td>
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<td>Review at fourteenth session</td>
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<td>14.5.2.6</td>
<td>Forest fire statistics</td>
<td>Enquiry</td>
<td>Review at thirteenth session</td>
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Tabular presentation of Timber Committee programme of work 1980-1984

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<td>14.5.3.</td>
<td>Studies of selected economic problems</td>
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<td>14.5.3.1</td>
<td>Economic aspects of the fuller use of the forest biomass</td>
<td>Report to Joint Working Party by team of specialists</td>
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<td>14.5.3.2</td>
<td>Economic aspects of afforestation and reforestation</td>
<td>Report to Joint Working Party by team of specialists</td>
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<td>14.5.3.3</td>
<td>Economic aspects of the introduction of new forest machines and equipment</td>
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<td>14.5.3.4</td>
<td>Economic and statistical studies on wood/energy questions</td>
<td>Report to Joint Working Party by team of specialists</td>
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<td>14.5.4</td>
<td>Transfer of economic and statistical methods and experience in the forest and forest products sector</td>
<td>Decision by thirteenth session on basis of report of team of specialists</td>
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<td>14.5.5</td>
<td>Dissemination and exchange of general information and experience</td>
<td>Study tour in USA</td>
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<td>Preparation of country profiles (continuous)</td>
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