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ECONOMIC COMMISSION FOR EUROPE  
TIMBER COMMITTEE

REPORT OF THE FORTY-THIRD SESSION HELD AT GENEVA  
FROM 14 TO 18 OCTOBER 1985

As approved by the Committee

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### Introduction

1. The Timber Committee held its forty-third session at Geneva from 14 to 18 October 1985. The session was attended by representatives from the following ECE countries: Austria; Belgium; Bulgaria; Canada; Czechoslovakia; Finland; France; German Democratic Republic; Germany, Federal Republic of; Hungary; Ireland; Italy; the 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; and Yugoslavia. 1/
2. The following country participated under article 11 of the Commission's terms of reference: Malaysia.
3. The following United Nations and specialized agencies were represented: United Nations Conference on Trade and Development (UNCTAD); International Labour Organisation (ILO); Food and Agriculture Organization of the United Nations (FAO).
4. The following intergovernmental organizations participated: General Agreement on Tariffs and Trade (GATT); European Economic Community (EEC).
5. The following non-governmental organizations were represented: European Confederation of Agriculture (CEA); International Federation of Building and Wood Workers (IFBWW); International Technical Association for Tropical Timber (ATIBT); Organization of European Sawmilling Industries (OES).
6. The Committee paid homage to the memory of Mr. Edmund Nowicki, delegate of Poland and Chairman of the Timber Committee.
7. The Committee was informed by the secretariat of the delays in processing many of the documents for the present session. It considered that the failure to have available to delegations the documents necessary for the efficient conduct of the session in all official languages was totally unacceptable. It requested that this statement be brought to the attention of the services concerned so that a repetition should be avoided. The Committee furthermore pointed out that it was essential that those documents, on the basis of which decisions were to be taken, be issued in time to be circulated to governments well in advance of the session.

### Adoption of the agenda (Item 1 of the agenda)

8. The provisional agenda (document ECE/TIM/26) was adopted.

### Election of officers (Item 2 of the agenda)

9. The Committee elected Mr. L. Strångh (Sweden) Chairman and Mr. J. Säglitz (German Democratic Republic) Vice-Chairman.

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1/ Further information about participation may be obtained from the secretariat: Timber Section, ECE/FAO Agriculture and Timber Division, Palais des Nations, CH-1211 Genève 10.

Matters arising from the fortieth session of the Commission (Item 3 of the agenda)

10. The Committee was informed of the Commission's discussion of its work. Attention was drawn to the resolution and decisions of the Commission on the basis of TIM/R.105. The Committee agreed to take account of these discussions, resolution and decisions, particularly with regard to its programme of work.

Activities of teams of specialists (Item 4 of the agenda)

(a) Energy derived from wood: report of meeting, 15-16 April 1985

11. The Committee was informed of the activities of the team of specialists on wood energy questions on the basis of TIM/R.106. It noted that team members had prepared a number of papers which would be reviewed by other team members, collected and issued as a Timber Committee document. It urged that this document should be issued as soon as possible.

12. The Committee noted that proposals for a seminar or symposium on technology and equipment for the utilization of wood biomass for energy purposes, to be held under the Committee's auspices, had been put forward by Mr. V.P. Nemtsov (USSR) (TIM/R.106, annex III) but that the team had not been able to take a position on these suggestions. A number of delegations supported this suggestion, in view of the importance attached by the Commission to energy questions, and the increasing importance of wood energy questions in the forest sector.

13. The delegation of Sweden expressed concern about the extra strain that such a seminar or symposium would place on secretariat resources and announced that the Swedish Bioenergy Association (SVEBIO) was organizing an open seminar on Energy Derived from Wood, in conjunction with the Bio Energy 86 Conference and Exhibition to be held in Gothenburg (Sweden) from 27 to 31 October 1986. Subject to further discussions with the organizers, the programme of this seminar could be planned in close contact with the Timber Committee secretariat and along the lines proposed by Mr. Nemtsov. Such a seminar would be open to international participation and facilitate the exchange of information, without increasing the secretariat's workload. The basic documentation could include the papers by the members of the team mentioned in para. 11 above.

14. The Committee:

(a) decided that work under the Committee's auspices on the wood/energy field should be continued;

(b) noted with appreciation the announcement by SVEBIO about its intention to organize an open seminar along the lines proposed by Mr. Nemtsov and expressed an interest in participating through its secretariat in the planning of the seminar. SVEBIO has ascertained that every effort would be made to provide interpretation and translation in accordance with expected participation, although it was not possible to give precise guarantees;

(c) agreed that the team of specialists on wood energy questions should meet again, on the occasion of the SVEBIO seminar in October 1986 or shortly after, to review the experience gained and prepare proposals for further work in the wood/energy field, including the possibility of a seminar under the Committee's auspices;

(d) further agreed that it would decide on its future programme in the wood/energy field at its forty-fifth session in October 1987.

- (b) Implications of air pollution damage to forests for roundwood supply and forest products markets: report of the meeting of the team of specialists, 1-3 May 1985

15. The Committee was informed of the activity of the team, set up at its forty-second session, by the team's leader, Mr. L. Schotte (Sweden), on the basis of TIM/R.107. The Committee endorsed this report, notably the team's assessment of the present situation and outlook. It also endorsed the team's proposals for future activities, namely that the team should:

"(a) define what information should be collected in the framework of a system to monitor the effects of forest damage on roundwood markets and wood supply and make recommendations, through the Committee, to the relevant body or bodies, as to how this information should be collected;

(b) collect relevant information, including that arising from the activities under (a) above, and report annually on these effects to the Timber Committee. This may involve meeting once a year and other activities as may be defined, e.g. carrying out of ad hoc analyses of particular aspects of the problem;

(c) examine whether it is feasible and desirable to prepare a report with a quantitative element on possible effects in the medium- to long-term of this type of damage on wood markets and supply. If considered possible and desirable, the team could prepare such a report". (TIM/R.107, para. 12).

The Committee also approved the proposed methods of work (TIM/R.107, paras.13-16).

16. The Committee considered it could provide a valuable service to the forest and forest products sector by presenting an objective and authoritative view of the impact, if any, of air pollution damage to forests on the markets and by giving this statement wide distribution. Accordingly the Timber Committee decided to issue a press release, based on the team's statements in TIM/R.107/(annex II).

17. The Committee did not endorse the team's suggestion that delegations to the Committee session be invited to include a section on pollution damage effects in their market statements for the annual session, as it feared this could bring about misinterpretation and speculation. Delegations who so wished could however include such a section on a voluntary basis.

18. The Committee welcomed the continuing close co-operation with other international bodies, notably the FAO European Forestry Commission and the Executive Body of the Convention on Long-range Transboundary Air Pollution, and subsidiary bodies, which avoided any duplication of effort. In particular it was hoped that the information needs identified by the Timber Committee team would be taken into account by the other bodies in their data collection activities.

19. The Committee noted that it was often difficult if not impossible to identify with certainty the causes of particular instances of forest damage. It could prove necessary to examine forest damage as a whole and not only the damage attributed to air pollution.

(c) Stress grading and finger-jointing of coniferous sawn timber: progress report

20. The Committee was informed by Mr. W.E. Townsley (Canada), leader of the team of specialists on this subject, that after consultation of the correspondents on stress grading (see TIM/R.108), the following consensus had emerged:

(a) the revisions to the recommended standards, proposed to the forty-second session in TIM/R.94, should be accepted;

(b) in the circumstances there was no need at present for an ad hoc meeting to revise the recommended standards or discuss related subjects.

The Committee endorsed this consensus and requested the secretariat to re-issue the recommended standards, modified as agreed. It asked Mr. Townsley to report to its forty-fourth session on developments for stress grading and finger-jointing and to make any recommendations he considered necessary. It also considered that a special topic at the forty-fourth session could be the state of the art as regards stress grading, (possibly including results of the North American in-grade testing programme), and invited its office-holders to examine this suggestion at their next meeting.

21. The Committee noted that ISO TC 165 Timber Structures had included in its work programme the question of drawing up an International Standard, for stress grading, to be based on the ECE recommended standard. It noted that, although it had always been its intention that the ECE work should be taken over by ISO, the ECE Recommended Standards were probably not yet ready to be passed on. It asked Mr. Townsley and the secretariat to contact the secretariat of ISO TC 165, in order to ascertain that Committee's intentions, so that a decision could be taken at the Timber Committee's forty-fourth session.

22. It also requested Mr. Townsley to maintain communication and co-operation with UNIDO in this field, as it was understood that UNIDO was considering some standard-related work.

Other activities since the Committee's forty-second session (Item 5 of the agenda)

(a) Study tour in Switzerland, 12-17 October 1984

23. The Committee was informed of the results of this tour by Mr. V.P. Nemtsov (USSR). Participants had visited wood-working industries (sawmills, wood-based panel mills, joinery plants) as well as Swiss forests, and had heard an explanation of the methods being used for the Swiss forest inventory. The Committee warmly thanked the Swiss authorities, as well as the organizing institutions and individuals for a very interesting tour and for the generous hospitality extended to participants.

(b) Measures to be taken in the event of sudden and severe damage to forests

24. The Committee was informed, on the basis of TIM/R.109, of the follow-up to the forty-first session's decision to establish a project on measures to be taken in the event of sudden and severe damage to forests. To date, five countries had forwarded information on a total of 11 instances of damage, although it appeared that by no means all cases of sudden and severe damage to

forests that had occurred in the past few years had been reported by countries. Several countries informed the Committee that they had not transmitted to the secretariat their experiences of sudden and severe damage to their forests, when they considered that these events had no influence on the international market. Some other countries had sent reports even when they considered that these experiences only had consequences on the national level.

25. Some delegations noted that import restrictions had in some cases been imposed after sudden and severe damage to forests and suggested that more information on any such restrictions should be provided on future occasions.

26. The Committee urged delegations to continue to forward information on these events to the secretariat who would circulate them to the addresses provided by countries. In general, the Committee suggested that events should be reported even in cases where doubt prevailed as to their possible impact on the international market. Delegations were also invited to report on damage by major fires, wherever this damage concerned merchantable timber.

27. The Committee repeated its invitation to countries that have not yet done so to:

(a) provide addresses to which information received by the secretariat on sudden and severe damage to forests should be forwarded;

(b) provide details of any reports on methods used to recover timber after such damage and to reforest damaged areas;

(c) report any cases of sudden and severe damage using the guidelines drawn up by the secretariat, and given in TIM/R.109, annex III.

(c) Other activities

28. The Committee regretted that it had been necessary to cancel the study tour in Sweden scheduled for May/June 1985, due to insufficient participation despite the interesting programme and the efficient and timely organization. Possible explanations for the small number of inscriptions were budget restrictions and the many international forest sector meetings in 1985. In view of this experience, the Committee stressed the necessity of considering whether projects would have sufficient support when they were introduced into the programme of work.

The forest resources of the ECE region: results of survey (Item 6 of the agenda)

29. The Committee was informed of the results of the three parts of the survey on "The Forest Resources of the ECE Region (Europe, the USSR, North America)" published in July 1985 (ECE/TIM/27). It warmly welcomed the publication of the study, which it considered was a basic reference document for a wide range of research, planning and policy making in the forest sector. The study was divided into three parts:

- |          |  |
|----------|--|
| Part I   | General forest inventory data  |
| Part II  | Estimates of the volume and mass of woody biomass                                    |
| Part III | Role of the forest in supplying environmental and other non-wood goods and services. |



30. The Committee warmly thanked all the country correspondents who had contributed so successfully to the work, as well as Mr. G.A. Morin (France) and Mr. K. Janz (Sweden) for their extensive help with Parts II and III respectively.

31. The Committee noted that the study had been presented to the Joint FAO/ECE Working Party on Forest Economics and Statistics in August 1985 and agreed with the Working Party's suggestions to undertake the following actions (see TIM/EFC/WP.2/14, paras. 5-16):

(a) to consider the possibility of improving the consistency of classification between regions and over time which would ensure that statistics for different countries were fully comparable. Particular attention should be given to information on change in forest area;

(b) to computerize the data in the assessment and to create the possibility for continuing updating of the data base as the results of new national inventories became available;

(c) to establish a team of specialists to draw up proposals for follow-up action to Parts I and II of the publication for submission to the sixteenth session of the Working Party;

(d) to encourage countries to continue research and analysis, into the estimation of wood biomass, notably into the conversion factors.

Market developments in 1985 and prospects for 1986 (Item 7 of the agenda) 1/

32. The Committee heard a brief statement from each delegation on recent developments in its country's economy and main forest products markets, which supplemented the written country statements. The Committee took note, during the discussion, of the Annual Forest Products Market Review (volume XXXVIII, issue No. 6 of the Timber Bulletin), and of the brief updating of the Annual Review by the secretariat (TIM/R.110 and addenda). It drew up tables of estimates for 1985 and 1986 of domestic requirements, production, imports and exports of sawn softwood and softwood logs, sawn hardwood and hardwood logs (temperate-zone and tropical), particle board, plywood, fibreboard and pulpwood. A summary table of the estimates is presented in annex 1.

(a) General introduction

33. The strong growth of the United States Gross National Product in 1984 slowed down to an annual rate of about 1.7 per cent in the first nine months of 1985. The economic performance of the industrialized countries of western Europe has changed little during the current year: the average growth of Gross Domestic Product in these countries is expected to remain between 2 and 2.5 per cent. In the centrally planned economies, the acceleration in growth in 1983 and 1984 is being followed by steadier expansion in 1985 of around 3.5 per cent. On the whole, the forces acting on the economies of the countries in the ECE region may continue to sustain a modest pace of economic growth in the coming year.

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1/ The statement on the market approved by the Timber Committee (paras. 32-68) has had to be revised by the secretariat after the session in the light of revised forecasts received from one country. These changes affect certain details but not the general substance of the statement.

34. Inflation in the industrialized market economies has fallen to relatively modest levels and seems unlikely to re-emerge as a major economic problem in the near future. Monetary conditions have become less tight in a number of countries, including the United States, which should ease constraints on investment. On the other hand, for many developing countries weak export growth, falling commodity prices and reduced capital inflows have made it very difficult to service foreign debt: this situation remains a serious threat to the stability of the international financial system.

35. New dwelling construction has remained a weak sector of the economy in many European countries and, given demographic changes and the adequacy of the housing stock, at least in terms of quantity, there seems little opportunity for a strong revival in this sector. This has important implications for the sawnwood and wood-based panels industries, for which construction is by far the largest market. It could mean that the present difficulties being experienced by these industries are likely to persist: sluggish demand for their products, especially for the lower qualities, over-capacity, low profitability and under-capitalization.

36. The Committee considered that initiatives needed to be taken to intensify research and development in the fields of processing technology, product quality and markets as well as promotion, in which wood's positive characteristics as a versatile and renewable material should be demonstrated and better exploited. More effective international exchange of information on the practical application of research and on marketing and promotion programmes would be very useful. The Committee agreed to consider, in drawing up its programme of work, ways in which it might contribute to such an information exchange.

37. With regard to the outlook for 1986, the Committee noted that some further growth in forest products markets was foreseen for North America. In Europe, the level of demand for most products would be a little higher than in 1985, but markets were likely to remain highly competitive, with purchasing on a selective basis. Steps taken by suppliers in some countries, for example a reduction in whitewood sawnwood production in northern Europe, had already resulted in a better market equilibrium.

(b) Softwoods

38. After a modest recovery in 1983 and 1984, European consumption of sawn softwood is expected to decline in 1985 but to turn upwards again in 1986. Domestic requirements in 1985 are estimated at 73.7 million m<sup>3</sup>, 1.9 million m<sup>3</sup> or 2.5 per cent less than in 1984. About a third that fall is expected to be recovered in 1986 despite an appreciable fall in requirements forecast by Romania. Two leading importing countries, the Federal Republic of Germany and the United Kingdom, account for a substantial part of the total changes in Europe, both downwards in 1985 and upwards in 1986. In North America, growth in consumption is forecast to continue, but at a decelerating rate: from 28 per cent between 1982 and 1983 (initial phase of recovery) to 2.6 per cent between 1985 and 1986 to reach 119.9 million m<sup>3</sup> next year.

39. The decline in production in Europe in 1985 is expected to be somewhat steeper than of domestic requirements, and to continue at a slower pace in 1986 in contrast to the upturn in requirements, reflecting some exporting countries' expectations with regard to trade and stock changes. Intentions to curtail

whitewood production, which had been announced by some European exporting countries at the October 1984 session, have been successful in bringing supply into better balance with demand, which was reflected in a stabilization of whitewood prices during 1985 and even some firming for certain specifications.

40. Expectations for imports and exports of sawn softwood in Europe in 1985 and 1986 reflect those outlined above for domestic requirements and production respectively. In the case of exports, there could be some reduction in shipments to non-European destinations, notably in West Asia and North Africa, but the extent of the fall is difficult to assess. Sweden, Finland and Austria account for most of the expected fall in European total exports in 1985.

41. The supply of softwood logs in Europe is forecast to be further reduced in 1985 and 1986 after it turned downwards in 1984. Between 1984 and 1986 the decline is expected to amount to 2.9 million m<sup>3</sup> or 2.3 per cent to reach a level of 121.8 million m<sup>3</sup>. This partly reflects lower demand from the sawmilling industry but also a return to more normal felling patterns after some countries in central Europe had to cope with the disposal of substantial volumes of timber damaged by storms in late 1984. Softwood log exports, after reaching a peak of 3.7 million m<sup>3</sup> in 1985 are forecast to fall by 28 per cent in 1986, with Czechoslovakia and the Federal Republic of Germany showing the main changes.

42. In the written market statements of some countries and during the discussions, attention was drawn to the very difficult period through which the European sawmilling industry has been passing, with supply of sawn softwood exceeding demand, especially of the lower qualities, excess production capacity, prices under pressure and low profitability. Several delegations referred to various measures being taken to ease the situation, for example the closing down in recent years, due to lack of profitability, of 1 million m<sup>3</sup> of capacity in Finland, appreciable cuts in production of whitewood in northern Europe in 1985 and plans for the temporary closure of some mills in Austria during the winter of 1985/1986.

43. There was widespread agreement that problems of oversupply in the ECE region and even world-wide could persist for the lower qualities of sawn softwood, including construction grades and lower. In Europe this was partly due to the continued poor demand for new housing, but increasing supplies of plantation-grown timber in Europe and elsewhere and the tendency towards greater self-sufficiency in the lower grades in several countries were also important factors. A concerted effort by Government, industry and trade would be necessary to combat the inroads being made by other materials into timber's markets and to improve its competitiveness and acceptability, particularly in the construction sector, including timber-frame housing. Examples of work already in hand are the greater use of kiln-drying and stress-grading in France, Switzerland and the United Kingdom, which are intended as longer-term measures to upgrade quality and meet customer requirements.

44. The Committee was informed about recent developments relating to US-Canadian trade in softwood. This trade is currently a politically sensitive issue, along with that of many other commodities in the US market, resulting from the strong US dollar. During discussion, several specific aspects of the Canadian-US softwood trade were reviewed.

45. There are a number of signs that the immediate problems of oversupply in several areas of Europe are being brought under better control. Prices for whitewood, which had weakened in the latter part of 1984 and early 1985, have subsequently steadied and even, for some assortments, strengthened a little. Prices for redwood also seem to be stabilizing. Whitewood stocks at Swedish and Finnish sawmills are now at very low levels, while those of redwood have begun to decline.

46. Changes in the pattern of supply can be observed in some countries. Plantation-grown timber in Ireland and the United Kingdom, for example, will continue to expand its share of domestic markets, while in the Netherlands, the share of imports brought overland from central Europe by truck has been increasing at the expense of imports by sea from northern Europe and overseas.

47. The Committee concluded that purchasing of sawn softwood in Europe in the coming year was likely to remain very selective. The more stable price situation, coupled with falling stocks in some producer countries and a somewhat improved outlook for consumption in several importing countries in 1986, should lead to a modest improvement in the tone of the European sawn softwood market in the course of the coming year. As noted earlier, some further modest growth is also foreseen for 1986 in North America.

(c) Hardwoods (temperate-zone and tropical)

48. Production and consumption of sawn hardwood staged a moderate recovery in Europe in 1984 after four years of uninterrupted decline. There were expectations at the Committee's October 1984 session that the partial improvement of the market would continue in 1985. Several factors were at work, however, which had a negative influence on the market. In particular, demand for sawn hardwood from two important utilization sectors, the furniture and building joinery industries, continued to be depressed.

49. The Committee's forecasts for 1985 reflect these factors, with modest falls foreseen for production and domestic requirements of sawn hardwood, the latter declining by 2.2 per cent to 21.3 million m<sup>3</sup>, and somewhat steeper declines in trade. Most of the 300,000 m<sup>3</sup> decrease in imports is expected to be of temperate-zone species; those of tropical sawn hardwood should remain at about the 1984 level.

50. Important factors affecting Europe's imports have been the high exchange rate level of the United States dollar and its fluctuations, and the important volumes of hardwood coming onto the market from windblows in 1984 in several countries, in particular France. Prices for hardwood in Europe have been relatively stable, although the price differential between lower and higher qualities has tended to widen even further.

51. The reduced level of activity on the European sawn hardwood market in 1985 is in contrast to the developments in North America where the market turned out to be stronger than had been anticipated by the Committee in 1984. Consumption of sawn hardwood is now forecast to show a rise of 8.5 per cent to 17.1 million m<sup>3</sup> in 1985 with less strong growth in production and imports. Exports, on the other hand, are expected to show a drop of nearly one fourth (360,000 m<sup>3</sup>) which may be associated with the strength of the United States dollar.

52. In line with the market for sawn hardwood, that for hardwood logs in Europe also showed a less positive development in 1985 than had been expected. Consumption, and imports of hardwood logs by Europe are forecast to decline somewhat in 1985, and production to rise marginally while only exports show a more positive trend, with an expected increase of over 11 per cent. The rise in exports is accounted for largely by increased exports by France (450,000 m<sup>3</sup> or 47 per cent) and the Federal Republic of Germany (63,000 m<sup>3</sup>, or 34 per cent).

53. For 1986 the Committee forecasts a marginal rise of 0.1 per cent in Europe's consumption of sawn hardwood, but a larger one for trade, of 2.8 per cent for exports (mainly due to higher exports forecast by France and Yugoslavia) and of 4.0 per cent for imports, accounted for, as in the case of consumption, largely by the Federal Republic of Germany and Italy. A marginal fall is forecast for production (0.4 per cent), which is largely due to the expected drop in production forecast by Romania.

54. For the 1986 hardwood log market in Europe, the Committee forecasts small increases in consumption and production compared with 1985, but slight declines in both imports and exports.

55. In the discussion it was pointed out that present demand for hardwood was being affected not only by the cyclical market fluctuations, but by a trend since the early 1980s in major utilization sectors, notably the furniture and building joinery industries increasingly to use alternative materials to hardwoods. This contrasted with the trends seen during the 1970s when hardwood use increased significantly in a variety of end-uses, partly on account of the intrinsic decorative value of many of these species. In recent years, however, the cost element has been a major consideration for the manufacturing industries.

56. The Committee's attention was also drawn to the important structural changes which were taking place, and could continue to do so, in the tropical hardwood sector and to the many problems with which it was faced, not least of which were the allegations of forest destruction held against the trade by some ecological movements.

(d) Wood-based panels

57. Although the same factors have been at work in 1985 in the wood-based panels sector in Europe as in the sawnwood sector, their impact on the former appears to have been less negative. European consumption of particle board, plywood and fibreboard in aggregate is estimated to reach 33.1 million m<sup>3</sup> or slightly more than in 1984. Consumption of particle board and fibreboard is expected to be somewhat higher than the 1984 levels, but of plywood lower. Forecasts of production broadly reflect these changes in consumption.

58. As in the case of sawnwood, the markets for wood-based panels in North America are now expected to develop rather more strongly than expected by the Committee a year ago. Consumption of wood-based panels in total in 1985 is estimated at 36.7 million m<sup>3</sup>, which is 1.2 million m<sup>3</sup>, or 3.4 per cent, more than in 1984, with all three panels sharing in the growth.

59. For 1986, a further small rise in European consumption of wood-based panels is foreseen, to 33.2 million m<sup>3</sup>, 50,000 m<sup>3</sup> (0.2 per cent) more than 1985. The rise is due entirely to plywood which is expected to more than recover the drop foreseen for 1985. Consumption of particle board, on the other hand, is forecast to decline marginally, by 0.2 per cent, to 23.9 million m<sup>3</sup>, largely due to the fall forecast by Romania. Further growth is also expected in North America, but somewhat slower in 1986 than in 1985, to reach 37.5 million m<sup>3</sup>. It may be noted that whereas particle board now accounts for some 72 per cent of the total wood-based panels market in Europe, its share, including waferboard and oriented strand board (OSB), in North America is about 26 per cent with plywood still holding 57 per cent of the market.

60. On several previous occasions, the Committee has noted that forecasts for production and exports of wood-based panels have tended to be more optimistic than for consumption and imports, reflecting the hopes of producers regarding their respective shares of the market. This time it is of interest that the forecasts of European production of two panels (plywood and fibreboard) in 1986 are all slightly lower than for 1985, whereas consumption is estimated to rise; the same phenomenon is seen for exports (lower than 1985 for plywood and only marginally higher for fibreboard) and imports (higher than 1985). The explanation for this is not readily apparent, but it should not be taken to indicate a tightening of supply. A similar situation is seen in North America for particle board and fibreboard.

61. During the discussion of the market for wood-based panels, attention was drawn to structural changes that were taking place in the wood-based panels sector. Among these were the increasing availability of raw materials suitable for the production of particle board and fibreboard, resulting from reforestation, notably in the United Kingdom, but also in Spain, Portugal and in some other countries. This situation, together with the availability of new technologies for wood-based panels, such as MDF and OSB, could result in some structural changes in wood-based panels usage and trade in Europe, as is already happening in North America. These developments also indicate the need for clearer distinctions in the statistical coverage of the wood-based panels sector.

(e) Pulpwood

62. In 1984, the pulp and paper sector world-wide achieved high levels of production and consumption. In the first half of 1985 there were clear indications that growth in production and consumption had slowed down or stopped altogether. Prices of chemical market pulp fell from the peak level reached in spring 1984, although the decline had stopped by mid-1985; there appeared to be oversupply of some grades. Currency fluctuations strongly affected the competitive positions of exporters.

63. The Committee foresees for 1985 a moderate increase in domestic requirements of pulpwood (including both roundwood and chips) in Europe (2.1 per cent, to reach 172.5 million m<sup>3</sup>) and a slight drop in the United States of America (0.8 per cent, to reach 200.6 million m<sup>3</sup>). The largest increase forecast in domestic requirements between 1984 and 1985 was for Finland (2.2 million m<sup>3</sup>). For 1986 the Committee estimates practically no change in requirements for Europe (+ 0.4 per cent), but an increase of 2.9 per cent in the United States of America, to reach 206.5 million m<sup>3</sup>.

64. Domestic supply is expected to follow a similar course; it is forecast to rise in Europe by 3.3 per cent to 160.2 million m<sup>3</sup> in 1985 and by a further 1.1 per cent in 1986. European domestic supply of coniferous roundwood pulpwood is forecast to rise in 1985 (+ 6.8 per cent) while that of non-coniferous roundwood pulpwood is forecast to fall marginally and that of chips and residues to remain stable. Domestic supply of coniferous roundwood in Finland is expected to rise by 5.1 million m<sup>3</sup> (36 per cent) between 1984 and 1985.

65. Trade in pulpwood is expected to fall in Europe and Northern America in 1985 and to continue to do so in Europe in 1986 but to stage a partial recovery in 1986 in North America. European imports are forecast to drop by 2.2 per cent in 1985 and 0.3 per cent in 1986, and exports by 3.2 per cent in 1985 and 11.5 per cent in 1986. A fall in exports of nearly 0.9 million m<sup>3</sup> (63 per cent) is forecast by Czechoslovakia for 1986, partly due to the coming on stream of new capacity. Imports by the United States of America are expected to drop by 63 per cent in 1985, but to recover to near the 1984 level in 1986. North American exports, mostly of chips, are forecast to drop 7.4 per cent, to 7.1 million m<sup>3</sup> in 1985, but to rise by 6.0 per cent, to 7.6 million m<sup>3</sup> in 1986.

66. A number of countries reported that the use of wood as a source of energy, both for domestic use and in industry, had continued to increase. There were no reports, however, of negative effects on pulpwood supply.

67. The situation of oversupply on the world pulp market, due in part to the emergence of new producing countries other than the traditional major pulp suppliers, was putting pressure on pulp prices. Other developments noted in the pulp and paper sector were the continuing increase in the use of waste paper and of fillers, as well as the reduced grammage of some grades.

68. The Committee noted that in several countries the share of pulpwood in total removals was falling as sawmills developed their ability to saw smaller logs. Several countries were moving further towards the integration of wood processing, so that the optimum mix of sawnwood, pulp, wood-based panels and energy could be obtained from the raw material resource. One consequence was that it was becoming increasingly difficult to distinguish statistically between sawlogs and pulpwood. It was suggested, in view of these developments, that the Committee might review the outlook for roundwood removals as a whole, with a subsequent breakdown by assortment, rather than treating each roundwood assortment separately, as at present. The Committee requested the office-holders, with the secretariat, to examine this question and report on it to the Committee's forty-fourth session.

#### Study of European timber trends and prospects (Item 8 of the agenda)

69. The Committee was informed of progress, on the basis of TIM/R.111. The draft study was nearly complete and was being issued in advance of the review meeting scheduled for 11-15 November 1985 (provisional agenda TIM/EFC/AC.3/1). The Committee hoped that all delegates to the meeting would be prepared to participate actively in the review process.

70. After the review meeting the draft study would be revised and published, probably in mid-1986. The Committee was informed of the financial implications of the decision to publish the study: the cost of the issuance of the study was estimated at \$67,190. The study would be issued as a sales document but would be distributed free to those on the normal official mailing list.

71. The Committee agreed that the study, when published, was likely to arouse considerable interest and discussion in forest and forest industry circles, and even beyond. The Committee agreed that this should be encouraged and requested the secretariat to look for ways to give the study maximum exposure. Delegations were invited to consider whether there would be suitable occasions in 1986 or 1987 for presentation of the results of the study to a wider public in their countries and to discuss any such possibilities with the secretariat.

72. The Committee was informed that the Joint FAO/ECE Working Party on Forest Economics and Statistics had given preliminary consideration to economic and statistical matters arising from the preparation of the study and had set up a team to prepare proposals on this subject for the Working Party's sixteenth session in 1987 (see TIM/EFC/WP.2/R.84 and addenda and TIM/EFC/WP.2/14, paras. 61-66).

73. The Committee agreed that it would review the study at its forty-fourth session in October 1986 and discuss the study's policy implications at the joint meeting of the study's sponsoring bodies, the Timber Committee and the FAO European Forestry Commission, in October 1987.

74. The Committee noted that the study concentrated on Europe and that other regions, including Canada, the USSR and the United States, although these countries were members of the ECE, were treated as external suppliers. The Committee requested the secretariat to consider, with FAO and the countries concerned, the possibility of complementing ETTS IV with similar studies on Canada, the USSR and the United States, based on work carried out in those countries. This would also constitute a contribution to the FAO programme of outlook studies. The Committee were also informed of progress on the FAO programme, which might lead to a world outlook study.

75. The Committee warmly thanked all those who had been contributing to the preparation of the study, notably the members of the teams of correspondents, and the Governments who had seconded experts or contributed to the ETTS IV Trust Fund.

Special topics (Item 9 of the agenda)

- (a) Potential for the imaginative use of wood, including forestry and industry residues, for new (or rediscovered) products and fields of application

76. Mr. H.M. Montrey (USA), addressed the Committee on this subject (summary in TIM/R.112). He emphasized the importance of product development, as the forest industries were moving towards a market-oriented approach, and stressing value added products, rather than bulk grades. In addition, they had to adapt to changing raw material and there was strong competition from non-wood materials.



77. Mr. Montrey presented the following new technologies:

- automated systems for grading sawnwood;
- computer modelling of structural systems;
- new design principles, based on assessing reliability;
- steam pressing (the use of steam when pressing wood-based panels, shortening cycle times and improving quality);
- the use of oriented strand techniques in products for structural uses;
- manufactured structural components;
- engineered building systems (composed of single components);
- fibre-based structural products;
- environmentally-safe wood protection systems, e.g. for foundations;
- improved adhesives;
- mechanical fastening systems;
- combinations of wood and other materials.

Mr. Montrey stressed the need for producers to understand the end-user's requirements.

78. In the ensuing discussion, special attention was paid to the problem of gaining acceptance for wood products in building codes and standards. In particular, the behaviour of wood products in fire had to be presented not only in technical terms to the responsible authorities but also to the general public.

79. Several delegations considered that there was a need for increased research and product development if wood and wood products were to retain or expand their market share. There was also a need for considerably improved information on how wood products were used at present.

80. The Committee warmly thanked Mr. Montrey for a most interesting presentation and requested him to make available the text, if possible with the diagrams, to the secretariat for distribution to the delegations or publication.

81. Mr. Nemtsov (USSR) informed the Committee of a recent study by Mr. Pushkov on the possibilities to reduce all forms of waste in the forest and forest industry sector. The Committee accepted with appreciation Mr. Nemtsov's offer to send the study to the secretariat.

(b) The positive role of forest products industries and trade in the conservation and protection of the forest environment

82. A paper on this topic prepared by Mr. J. Van de Stadt (Netherlands) was read by Mr. K. Bosdijk. It presented the views of the Netherlands Timber Trade Association on the damage to European forests which has been attributed to air pollution and on tropical deforestation. The Association considered that the timber trade should accept to share responsibility in the search for solutions to forest conservation and protection problems in order to fulfil its task of ensuring continuity of supply to the market in the long term. Where such supply appears threatened, it must use its powers of persuasion to encourage those responsible for the forest resource to follow policies which combine rational exploitation with sound ecological principles.

83. The paper concluded by pointing out the need for the timber trade to gain the respect and the trust of the different interest groups concerned with forest protection, especially at the present time when the trade in and use of timber from a depleting tropical resource base was being questioned in some quarters. The trade should make clear that it fully supports policies for the conservation and protection of the forest resource.

84. In the discussion that followed, the point was made that the timber sector had to cope with people's fears regarding the possible impact of air pollution. Great care had to be taken not to give the possibility for drawing misleading conclusions about the implications of damage to forests. The question was also raised of the need for a pricing policy for tropical timber that would incorporate costs of regeneration or of establishment of replacement plantations.

85. The Committee warmly thanked Mr. Bosdijk and Mr. Van de Stadt for the most interesting presentation.

(c) The outcome of the World Forestry Congress, Mexico, July 1985, and its relevance to the FAO International Year of the Forest

86. The Committee was informed of these events on the basis of TIM/R.114 (see also paras. 89-90 below).

Activities of other Principal Subsidiary Bodies of ECE of concern to the Timber Committee (Item 10 of the agenda)

87. The Committee was informed, on the basis of TIM/R.115 and a synoptic table, of activities of other Principal Subsidiary Bodies of the ECE dealing with matters of concern to it. It took note of this information and agreed to take it into account when discussing its own programme of work. The Committee's attention was especially drawn to the activities of the ECE Committee on the Development of Trade in the field of the Inventory of obstacles to trade, notably those linked to wood and wood products. On the basis of TIM/R.115/Add.1, the Committee was invited to consider the relevant notifications in the Inventory and to formulate comments and suggestions for the removal or gradual reduction of such obstacles for submission to the thirty-fourth session of the Committee on the Development of Trade in December 1985. Due to the delay in receiving this document, the Committee was not able to comment on it, but invited delegations to forward any observations they may have to the secretariat.

Activities of other international bodies relevant to the work of the Committee  
(item 11 of the agenda)

88. The representative of the Food and Agriculture Organization (FAO) informed the Committee that 16 October 1985 was the fortieth anniversary of the formation of FAO. The opportunity of this occasion was taken to focus attention on the primary concern of FAO in raising levels of nutrition and standards of living of people everywhere, improving agricultural production and distribution and bettering the conditions of rural populations. Forestry and forest products are an inseparable part of the work of FAO.

89. The FAO Council at its eighty-sixth session had adopted a resolution declaring 1985 as the "FAO International Year of the Forest" (IYF), in order to focus world attention on the increasing threat to or destruction of forests in all ecological areas. FAO's activities in 1985 had been oriented to support the IYF, making full use of FAO's network of representation, and of field projects and meetings; FAO member countries were also assisted.

90. FAO had been closely associated with the preparation, operation and follow-up of the World Forestry Congress, organized by the Government of Mexico in Mexico City in July 1985. This congress adopted as its declaration "The Manifesto of Mexico" which placed particular stress on the conservation of forests in the face of the threat of atmospheric pollution, forest fires, pests and diseases, and deforestation and degradation in the tropical arid and semi-arid regions of the world.

91. The Committee on Forest Development in the Tropics had met in June 1985 and adopted an action programme in tropical forestry. The World Forestry Congress emphasized the importance of this plan and supported the initiative proposed in the five priority areas: Forestry and Land Use; Fuelwood and Energy; Conservation of Tropical Forest Ecosystems; Forest Based Industrial Development; and Institutions.

92. The following activities of FAO occurring during the period immediately ahead were considered of particular relevance to the work of the ECE Timber Committee: the European Forestry Commission meeting in Budapest from 28 October to 1 November 1985; the meeting of the Committee on Mediterranean Forestry Questions - Silva Mediterranea - in France in December 1985; the African Forestry Commission in January 1986; the North American Forestry Commission in April 1986; and the Committee on Forestry in April 1986. In September 1986 the FAO Advisory Committee of Experts on Pulp and Paper would meet to review the Outlook Study for Supply and Demand of Pulp and Paper. A meeting of the Committee on Wood Based Panel Products was also scheduled for 1986.

93. As Silva Mediterranea had not met for many years, an important objective of the session would be to relaunch its activities and establish a new programme of work.

94. A major topic of the European Forestry Commission session would be the role of the forester in the formulation of policy for the conservation and protection of the forest resource. Papers would also be presented on special topics related to forestry in Hungary.

95. The representative of the International Labour Organisation (ILO) informed the Committee of the first meeting of its Forestry and Wood Industries Committee, held in September 1985. The discussion of the three basic reports - one general report and two technical ones: "The achievement of full employment in the wood industries" and "Working, living and social conditions in forestry" - had led to the adoption of Conclusions and Resolutions on which tripartite consensus was reached among the delegates representing Governments, Employers' and Workers' Organizations. The Committee was also informed of ILO's close and successful collaboration with ECE and FAO within the framework of the Joint FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers, as well as its interest in the work of the Joint FAO/ECE Working Party on Forest Economics and Statistics. The ILO's work outside the ECE region, notably in developing countries, was briefly presented.

96. The representative of the United Nations Conference on Trade and Development (UNCTAD) informed the Committee that the International Tropical Timber Agreement had come into force on 1 April 1985. The International Tropical Timber Organization, which will begin its operations in early 1986, will function through the International Tropical Timber Council (its highest authority) and three permanent committees, to cover the following fields: Market Intelligence; Reforestation and Forest Management; and Forest Industries. The Committee noted further that the decision on the site of the headquarters of the organization would be taken at the session of the Council in November 1985.

97. The representative of the International Federation of Building and Woodworkers (IFBWW) informed the Committee of its activities, notably in connection with the first session of the ILO Forestry and Wood Industries Committee. The next congress of the IFBWW will be held in Geneva in December 1985 and deal with issues relevant to employment and working conditions, as well as long-term housing policy, new buildings and modernization in housing.

98. The Committee took note of written statements tabled by the following organizations: United Nations Industrial Development Organization (UNIDO); General Agreement on Tariffs and Trade (GATT); International Organization for Standardization (ISO); International Technical Association for Tropical Wood (ATIBT); and European Plywood Industries' Federation (FEIC).

Programme of work for 1986-1990 (item 12 of the agenda)

(a) Joint FAO/ECE Working Party on Forest Economics and Statistics - fifteenth session, August 1985

99. The Committee took note of the report of this session (TIM/EFC/WP.2/14), presented by the Working Party's Chairman, Mr. E. Clicheroux (Belgium). Attention was drawn particularly to the work on resource assessment, the structure and capacity of wood processing industries, statistics on labour and on forest health and damage, and economic aspects of the introduction of machines, full use of the biomass and afforestation. The opportunity was taken to thank the Government of Finland for acting as host to the meeting of the team of experts on sawmilling questions and for financing participants from developing countries. Particular appreciation was expressed for the exceptional support provided to the Working Party's programme over a long period by Mr. L. Heikinheimo (Finland) who has now retired.

100. The Committee endorsed the programme of work proposed by the Working Party, although some concern for the heavy work load was expressed. The Committee particularly welcomed the critical approach taken by the Working Party to programme formulation. This approach involved clear definition of project intent, clarification of reasons for choice of method and an assessment of countries' interest in the project in order to ensure active support and participation. The Committee supported the Working Party's request that countries transmit their views on the options for consideration by its office bearers. The regrouping of projects and the inclusion of economic as well as statistical aspects were also strongly supported.

(b) Joint FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers

101. The Committee was briefly informed of the activities of the Joint Committee which had taken place since the Committee's last session:

- Seventh session of the Joint Committee's Steering Committee, Geneva, April 1985 (report: TIM/EFC/WP.1/AC.1/8);
- Seminar on occupational health and rehabilitation of forest workers, Kuopio (Finland), June 1985 (report: TIM/EFC/WP.1/SEM.19/2);
- Seminar on the technology and mechanization of logging operations in mountainous regions, Krasnodar (USSR), September 1985 (report: TIM/EFC/WP.1/SEM.20/2)

The Committee expressed its thanks to the countries which had hosted the two seminars.

102. The Committee was further informed of the preparations for the sixteenth session of the Joint Committee, to be held in Oosterbeek, near Arnhem (Netherlands) from 2 to 5 June 1986. (Provisional Agenda: TIM/EFC/WP.1/15). The session will be preceded by a seminar on the preparation and implementation of forest management plans (26-31 May), which will be organized in collaboration with the International Union of Forestry Research Organization (IUFRO).

103. The Committee was also informed of preparations for further work, notably two seminars to be held in 1986 under the auspices of the Joint Committee:

- Seminar in Spain on methods and equipment for the prevention of forest fires in collaboration with IUFRO;
- Seminar in Austria, the Federal Republic of Germany and Switzerland on the transfer of basic technology from the ECE region to other regions.

(c) Economic and technical developments in the furniture industry

104. The Committee was informed of the situation as regards this project by Mr. I. Predescu (Romania) (TIM/R.116). It noted that so far only three nominations to the proposed team of specialists had been received, from Bulgaria, Poland and Yugoslavia, in addition to Romania, the lead country. As the team's

composition was limited and unbalanced geographically, it had not been able to carry out the mandate entrusted to it by the Committee, namely to draw up proposals for the scope and programme of a seminar on the furniture industry. A number of countries considered that this project should be maintained in the Committee's programme of work. However, in view of the lack of support for the project in many countries, the Committee decided not to proceed further with the activities on the furniture industry as originally planned, until an activity of more general interest to member countries could be identified. The mention of furniture in project 14.4.1 - Development and introduction of new technologies in the wood-working industries, including furniture, should however be maintained.

(d) Availability and use of lower quality hardwoods

105. Mr. E. Clicheroux (Belgium), consultant to the secretariat, presented preliminary results of his analysis of this subject undertaken in accordance with project 14.4.2 of the Committee's programme. He pointed out that lower quality hardwoods accounted for a significant part of total hardwood removals, although it was difficult to obtain precise data, because of statistical and definition problems. These hardwoods had some major outlets in the manufacture of wood-based panels, pulp and as a source of energy, although some traditional uses (e.g. for sleepers or sawn mining timber) were decreasing in importance. In several countries sizeable volumes of hardwoods could not find an outlet; this situation encouraged neglect of silviculture, and degradation of the forest.

106. There was wide support in the Committee for holding a seminar on this subject. Both France and the United States indicated that they were willing to act as host to seminars in 1987. The Committee warmly welcomed these offers and requested the authorities of these two countries to consult with each other and the secretariat to find a satisfactory solution, and to report to the Committee's office-holders before April 1986. One possibility which could be considered was the holding of two seminars with different orientations.

107. It was pointed out that data on the potential availability of low quality hardwoods would be of interest to the proposed seminar. Countries with such information were requested to transmit it to the secretariat.

108. It was also suggested that species should be grouped according to end-uses (e.g., beech/birch/maple, oak/chestnut, poplar/willow).

109. The Committee thanked Mr. Clicheroux for his work. It agreed that his report, when completed, should be circulated to countries with a request that they correct and complete the information presented. The completed report should be submitted to the forty-fourth session and would also be one of the basic documents for the seminar(s).

(e) Management training in the sawmilling industry

110. The Committee was informed of the response to its request to countries to provide information on the availability of education and training to management staff in the sawmilling industry (TIM/R.118). It noted that relatively few countries had provided this information. After discussion, it agreed that, while the project within which this activity fell (14.4.4. - Management techniques in the wood-working industries) should be retained in the programme of work, education and training for management were not appropriate aspects for it to deal with. As management techniques were often the same in different industry

sectors, the Committee invited the secretariat to collect information on activities relating to management techniques being undertaken by other Principal Subsidiary Bodies of ECE, so that it could determine, at its forty-fourth session, whether there were experiences in other sectors which might be of value to the wood-working industries and whether it should undertake any further work in this field.

(f) Joint session in 1987 of the Timber Committee and the FAO European Forestry Commission

111. The Committee recalled that one of the principal reasons for convening a joint session in 1987 with the European Forestry Commission was to provide an occasion for a detailed discussion of the policy implications of the new study of European timber trends and prospects (TIM/R.119). It was informed, however, that its office-holders had strongly supported the suggestion of the EFC's Executive Committee that the opportunity should also be taken at the joint session in 1987 to mark the fortieth anniversary of both bodies.

112. It took note of some preliminary suggestions by the secretariat concerning the organization of the joint session and the activities that might be arranged. It fully supported the proposal to hold some special events and agreed that proposals should be drawn up by a preparatory meeting consisting of the Committee's office-holders and the EFC Executive Committee in April 1986. It requested the secretariat to draw this matter to the attention of the twenty-second session of the EFC and to invite it to agree with the arrangements proposed for the preparation of the joint session.

(g) Review and revision of the draft programme of work for 1986-1990

113. The Committee considered its programme of work on the basis of the following documents:

- the draft prepared by the secretariat (TIM/R.120, annexes I, II and III) which took into account the programme adopted at the Committee's forty-second session, the proposals referred to it by the fortieth session of the Commission, as well as the decision taken at that session and the results of the meetings of the Committee's subsidiary bodies;
- the programme of work proposed by the Joint FAO/ECE Working Party on Forest Economics and Statistics at its fifteenth session (TIM/EFC/WP.2/14, annex I) prepared after TIM/R.120.

114. The Committee also took into account its own discussions and decisions under other items of the agenda. It approved its programme of work for 1986-1990 as set out in annexes III, IV and V.

115. The Committee was informed that as work on the long-term outlook study was completed, secretariat resources would be released for other projects. The delegation of Poland to the Commission's fortieth session had suggested that the opportunity should be taken to shift the emphasis of the programme of work towards increased regional co-operation on airborne pollution and other forms of

damage to forests and on technological and economic problems of forest industries. The Committee also noted that it would be possible to resume activities in 1986 which had been suspended during the drafting of the long-term study, notably the preparation of medium-term surveys (project 14.1.1.2) and of country forest and forest products profiles (project 14.6.1.).

116. The Committee noted that a draft of the study of the structure and capacity of the wood-based panels industries (project 14.1.2.1) would be presented to the Committee's forty-fourth session in October 1986. The opportunity should be taken to attract the participation of leading members of the wood-based panels industry and trade, notably as members of the panels for the market discussion. It invited the secretariat to discuss this matter also with the European federations of the wood-based panels industries (FESYP, FEIC and FEROPA).

117. It was noted that at present during the Committee's review of markets, tropical-zone and temperate-zone hardwoods were discussed together despite the many differences between the two. The Committee agreed that the two products should be discussed separately, on an experimental basis, at its forty-fourth session, and requested the secretariat to make the necessary organizational changes. The Committee would decide on the basis of this experiment whether the two should in future be discussed together or separately.

118. The delegation of the USSR, recalling the recommendation of the Symposium on wood-based panels in the 1980s, held in May 1980, that similar symposia should be held on a regular basis, proposed that a seminar or symposium should be held on new technologies in the wood-based panels sector. The Committee agreed that this proposal be incorporated into project 14.4.1 and requested the secretariat, in consultation with the delegation of the USSR, to make proposals for the preparation of such a meeting to the Committee's forty-fourth session.

119. The Committee regretted that although project 14.1.3 - Trends, prospects and policies in forestry and forest products in southern Europe - had been in its work programme for six years, the proposed ad hoc meeting had not been convened, as no country had come forward with an offer to host it. The Committee agreed that the project should not be removed from its programme, in view of its importance to the countries concerned, and urged southern European countries to consider once again the possibilities of acting as host to the ad hoc meeting. In the meantime, it invited them to prepare national reports on the production and marketing of those forest products of special interest to them (e.g. cork, resin, pine nuts, honey). These reports could be collected and presented to the forty-fourth session of the Committee.

120. The delegation of the German Democratic Republic offered to act as host to the seminar on artificial and natural reforestation methods after harvesting scheduled to be held in 1988 under the auspices of the Joint FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers. The Committee accepted this offer with thanks and requested the secretariat to transmit the offer to the Joint Committee at its next session in 1986.

121. The Committee noted that Poland had offered to organize the study tour in 1987 on the theme of forest management related to forest damage. It welcomed this offer, but noted that a seminar under the auspices of the Joint Committee



was also scheduled for 1987, in the Federal Republic of Germany on the impact of acute forest damage on harvesting and silvicultural operations. The Committee suggested that as both the proposed theme and dates of the two events were very close to each other, the theme of the Polish tour should perhaps be altered, or the tour postponed. It requested the Polish authorities, in consultation with the secretariat, to prepare a revised proposal, for consideration by its office-holders in April 1986.

122. The delegation of the Federal Republic of Germany informed the Committee that it was obliged to register a general reservation about giving its approval to the programme of work, as it had not been able to review the draft programme sufficiently before the session. The Committee unanimously supported the reservation of this delegation and repeated its opinion that it was unacceptable that it should be prevented from carrying out its duties in a correct fashion because of a failure to process and issue documents in good time.

Other business (Item 13 of the agenda)

123. The delegation of Canada presented two films, one on the British Columbian forest products industry as a whole and one on the forest products industry of the Interior of that Province. The Committee thanked the Canadian delegation warmly for these interesting films.

Adoption of the report of the Committee's session (Item 14 of the Agenda)

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

Date of next session

125. The Committee agreed that its next session should be held from 13 to 17 October 1986, subject to the availability of conference services for that period.

Annex I / Annexe I

Europe (excl. USSR) : Summary table of market forecasts for 1985 and 1986

Europe (moins URSS) : Tableau recapitulatif des previsions du marche pour 1985 et 1986

(million m<sup>3</sup> - millions m<sup>3</sup>)

	Domestic requirements Besoins nationaux			Production			Imports Importations			Exports Exportations		
	1984	1985	1986 (actual) (estimates) (reels) (previsions)	1984	1985	1986 (actual) (estimates) (reels) (previsions)	1984	1985	1986 (actual) (estimates) (reels) (previsions)	1984	1985	1986 (actual) (estimates) (reels) (previsions)
Sawn softwood	75.59	73.71	74.33	73.79	71.11	70.79	25.77	23.96	24.62	22.92	21.34	21.36
Softwood logs	127.68	124.50	123.99	124.74	123.90	121.83	5.07	4.84	4.90	3.35	3.74	2.71
Sawn hardwood	21.75	21.26	21.28	19.28	18.96	18.88	5.36	5.06	5.26	3.00	2.77	2.85
- temperate zone *	..	..	..	..	..	..	2.52	2.24	2.39	2.68	2.48	2.56
- tropical zone *	..	..	..	..	..	..	2.84	2.82	2.87	0.33	0.29	0.29
Hardwood logs	37.77	37.47	37.94	33.66	33.82	34.29	6.74	6.49	6.48	2.57	2.86	2.81
- temperate zone *	..	..	..	..	..	..	2.73	2.52	2.51	2.50	2.78	2.74
- tropical zone *	..	..	..	..	..	..	4.01	3.97	3.96	0.07	0.09	0.08
Particle board	23.66	23.94	23.90	23.23	23.56	23.58	4.93	5.04	4.97	4.56	4.66	4.61
Plywood	4.89	4.82	4.91	3.20	3.14	3.13	3.21	3.10	3.18	1.50	1.43	1.41
Fibreboard	4.37	4.38	4.38	4.22	4.40	4.38	1.35	1.32	1.36	1.23	1.34	1.34
- Hardboard	2.97	2.99	2.96	2.94	3.09	3.02	0.87	0.85	0.89	0.86	0.96	0.95
- Insulating board	1.40	1.39	1.42	1.28	1.30	1.35	0.47	0.48	0.47	0.38	0.38	0.39
Pulpwood	168.99	172.54	173.25	155.09	160.23	161.92	23.28	22.77	22.70	15.16	14.63	12.99
- Roundwood	122.19	126.77	..	111.00	116.12	..	18.26	18.21	..	11.18	10.96	..
- coniferous *	85.39	89.93	..	75.17	80.31	..	13.47	13.61	..	7.34	7.05	..
- broadleaved *	36.80	36.84	..	35.83	35.81	..	4.80	4.60	..	3.83	3.91	..
- Residues, chips and particles	46.80	45.78	..	44.09	44.11	..	5.01	4.56	..	3.99	3.67	..



North America : Summary table of market forecasts for 1985 and 1986

Amerique du Nord : Tableau recapitulatif des previsions du marche pour 1985 et 1986

(million m3 - millions m3)

	Domestic requirements Besoins nationaux			Production			Imports Importations			Exports Exportations		
	1984 (actual) (reels)	1985 (estimates) (previsions)	1986 (actual) (reels)	1984 (actual) (reels)	1985 (estimates) (previsions)	1986 (actual) (reels)	1984 (actual) (reels)	1985 (estimates) (previsions)	1986 (actual) (reels)	1984 (actual) (reels)	1985 (estimates) (previsions)	1986 (actual) (reels)
Sawn softwood	112.88	116.90	119.90	122.19	122.90	125.30	32.03	35.90	36.60	41.20	42.50	41.80
Softwood logs	..	..	..	..	..	..	2.89	2.60	2.50	18.44	19.30	19.20
Sawn hardwood	15.72	17.05	17.35	15.96	16.80	17.40	1.35	1.40	1.45	1.51	1.15	1.45
- temperate zone *	..	..	..	..	..	..	..	..	..	..	..	..
- tropical zone *	..	..	..	..	..	..	..	..	..	..	..	..
Hardwood logs	..	..	..	..	..	..	..	..	..	0.76	0.70	0.70
- temperate zone *	..	..	..	..	..	..	..	..	..	..	..	..
- tropical zone *	..	..	..	..	..	..	..	..	..	..	..	..
Particle board	9.21	9.43	9.74	9.13	9.42	9.63	1.05	1.17	1.26	0.97	1.16	1.15
Plywood	20.04	20.84	21.25	19.44	20.00	20.50	1.38	1.52	1.17	0.79	0.67	0.87
Fibreboard	6.25	6.44	6.55	5.86	6.05	6.03	0.72	0.77	0.87	0.34	0.36	0.34
- Hardboard	2.27	2.24	2.35	2.07	2.15	2.15	0.29	0.24	0.34	0.10	0.14	0.14
- Insulating board	3.98	4.20	4.20	3.79	3.90	3.88	0.43	0.53	0.53	0.24	0.22	0.20
Pulpwood	..	..	..	..	..	..	..	..	..	7.69	7.12	7.55
- Roundwood	..	..	..	..	..	..	..	..	..	0.62	0.62	..
- coniferous *	..	..	..	..	..	..	..	..	..	0.58	0.58	..
- broadleaved *	..	..	..	..	..	..	..	..	..	0.04	0.04	..
- Residues, chips and particles	..	..	..	..	..	..	..	..	..	7.08	6.50	..

## Annex II

### Statement on effects of damage attributed to air pollution on roundwood supply and forest products markets

(issued also as a press release)

The Timber Committee, meeting in Geneva from 14 to 18 October 1985, approved the following statement, based on work by a team of specialists under the leadership of Mr. L. Schotte (Sweden).

#### Background

The Committee noted the existence of widespread visible damage to forests in Europe which has been attributed to air pollution. A synthesis of the latest surveys attached indicates that nearly 7 million ha of forest in Europe is affected by this type of damage. Of this total, about 230,000 ha, less than 0.2 per cent of the European forest area, are classified as dying or dead: any immediate impact on roundwood markets would be caused by developments relating to this type of stand. In its review of the situation the Committee noted that several countries, both in Europe and North America, had also found evidence of a decline in the rate of increment of stands.

#### Short-term effects

It has been necessary in recent years to harvest significant volumes of trees damaged by a number of causes, notably windblow, which naturally has had some effects on markets. In addition trees damaged by air pollution as well as by other causes have been harvested in sanitation fellings in several countries. It has been possible to absorb these volumes, notably by adjusting normal felling plans, and there has been no significant market disruption at the national level due to sanitation fellings, although some disturbance has occurred locally.

It is not possible to make any forecasts, even in the short-term, as to the impact on markets of the damage attributed to air pollution. Further sanitation fellings could be absorbed by normal mechanisms, e.g. adjustment of felling plans, but the possibility of short-term disruption or medium- or long-term structural adjustment cannot be ruled out. The information available at present is simply not sufficient to make any judgement on this point. Any assessment of the outlook for roundwood markets made on the basis of present data can only be speculative.

#### Information needs

As the possibility of market instability cannot be ruled out, it appears necessary to monitor the situation closely, and to improve the information base used for this monitoring. In addition to the normal sources of market information (e.g. data on removals, roundwood prices, reports of market analysts) it is desirable to have information on the following:

- the methodology of damage surveys, in order to determine whether they are adequate to provide quantitative estimates of sanitation fellings;

- felling plans, and adjustments to these plans;
- methods of deriving information on standing volume of damaged trees from data on area damaged;
- the physical and biological characteristics of the damaged trees, in order to determine their marketability;
- the rate of transition of stands from one damage class to another (this information would follow naturally from the holding of damage surveys with comparable methodology in successive years);
- information on what logging methods are likely to be used (if clear felling is chosen, the volume of the trees removed in sanitation felling will be larger than the volume of the damaged trees alone), and on possible changes in harvesting costs.

Estimated area of visible damage to crowns  
attributed to air pollution

(data available as of May 1985)

	Light damage	Moderate damage	Dying/ dead	Total	Percentage of exploitable closed forest area	
					Total damaged area	of which: Dying/ dead
	(1 000 ha)				(%)	
Austria	240 <sup>*/</sup>	80 <sup>*/</sup>	10 <sup>*/</sup>	330	10	0.3
Belgium	17 <sup>*/</sup>	2 <sup>*/</sup>	1 <sup>*/</sup>	20	3	0.2
Czechoslovakia	514 <sup>*/</sup>	123 <sup>*/</sup>	54 <sup>*/</sup>	691	16	1.2
France	86 <sup>*/</sup>	11 <sup>*/</sup>	3 <sup>*/</sup>	100 <sup>*/</sup>	1	-
Germany, Fed. Rep. of	2 424	1 163	111	3 698	50	1.6
Hungary	103 <sup>*/</sup>	13 <sup>*/</sup>	4 <sup>*/</sup>	120	8	0.3
Luxembourg	25 <sup>*/</sup>	5 <sup>*/</sup>	- <sup>*/</sup>	30	37	-
Netherlands	80 <sup>*/</sup>	20 <sup>*/</sup>	- <sup>*/</sup>	100	34	-
Poland	419	199	36	654	8	0.4
Switzerland	295	76	13	384	34	1.6
Ten countries with known damage	4 203	1 692	232	6 127	24	0.6
EUROPE (estimated)				6 900	5	0.2

Note: Based on sources with varying methodologies. Data are not strictly comparable between countries. For some countries the figures shown are based on expert estimates or partial surveys.

\*/ Unofficial figure or secretariat estimate.

ANNEX III

TIMBER COMMITTEE PROGRAMME OF WORK FOR 1986-1990:  
OVERVIEW AT THE 3-DIGIT LEVEL 1/

PROGRAMME 14: TIMBER

Sub-programme 14.1: Medium- and long-term trends, prospects and policies for forestry and forest products

Programme elements

- 14.1.1. Appraisal of medium- and long-term timber trends and prospects
- 14.1.2. Medium-term trends in the structure and capacity of the wood-processing industries
- 14.1.3. Trends, prospects and policies in forestry and forest products in southern Europe

Sub-programme 14.2: Current forest products market developments and short-term prospects, including international trade

Programme elements

- 14.2.1. Review of production, trade, consumption and prices of forest products
- 14.2.2. Standardization in the forest products sector

Sub-programme 14.3: Forest working techniques and training of forest workers

Programme elements

- 14.3.1. Silvicultural operations and general management aspects
- 14.3.2. Wood harvesting and transport
- 14.3.3. Vocational training, applied ergonomics, occupational safety and health

Sub-programme 14.4: Economic, technological and managerial issues for the wood-working industries

Programme elements

- 14.4.1. Development and introduction of new technologies in the wood-working industries, including furniture

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1/ As approved by the forty-third session.



- 14.4.2. Development of new products, markets and applications for forest products
- 14.4.3. Energy conservation and self-sufficiency in the mechanical wood-processing industries
- 14.4.4. Management techniques in the wood-working industries

Sub-programme 14.5: Environmental and resource conservation issues

Programme elements

- 14.5.1. Quantification and evaluation of the environmental benefits of forests
- 14.5.2. Rational use of wood biomass and the reduction of losses
- 14.5.3. Implications of air pollution damage to forests for the forestry and forest products sector
- 14.5.4. Measures to be taken in the event of sudden and severe damage to forests

Sub-programme 14.6: Forest and forest products economics and statistics

Programme elements

- 14.6.1. Publication of the Timber Bulletin
- 14.6.2. Selected problems of economics and statistics of forestry and forest products
- 14.6.3. Forest resource analysis
- 14.6.4. Transfer of economic and statistical methods and experience in the forest and forest products sector.

## ANNEX IV

### PROGRAMME OF WORK FOR 1986-1990: DETAILED PRESENTATION AT 4-DIGIT LEVEL

#### PROGRAMME 14 - TIMBER

This programme is carried out by the Timber Committee and its subsidiary bodies. The Committee meets annually, usually in October. In addition to the activities specified under the individual programme elements or subelements, the Committee also furthers the dissemination and exchange of information and experience by organizing study tours at the invitation of the Governments concerned.

#### SUBPROGRAMME 14.1: MEDIUM- AND LONG-TERM TRENDS, PROSPECTS AND POLICIES FOR FORESTRY AND FOREST PRODUCTS

##### 14.1.1. Appraisal of medium- and long-term timber trends and prospects

##### 14.1.1.1. Appraisal of long-term timber trends and prospects

Description: The Committee will keep under review and up-date projections and forecasts of long-term trends in production, trade, consumption and prices of forest products, comparing them with projections made in previous long-term studies. The studies will provide Governments with the latest projections and forecasts of long-term prospects at the regional and subregional level as a framework for national studies and as a basis for drawing up national policies for the forest and forest products sector. Amongst other factors, the Committee's analyses will take into account the impact of air pollution on the forestry and forest products sector, including the prospects for future wood supply.

Work accomplished: Preparation of the draft of the new long-term study was completed for review by an ad hoc meeting (jointly with the FAO European Forestry Commission) in November 1985.

Work to be undertaken: Following the ad hoc meeting, the study will be revised, completed and published in 1986. The Committee will hold a joint session with the European Forestry Commission in 1987 to consider the policy implications of the findings of the study.

Duration: Continuing.

##### 14.1.1.2. Medium-term trends in the markets for specific forest products

Description: The Committee will review medium-term (three-five 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. The medium-term surveys will allow recent trends to be compared with the projections made in the long-term studies (project 14.1.1.1.) and provide early warning to Governments of deviations from expected developments.

Work to be undertaken: Medium-term surveys will be carried out on a three-year rotation of the following sectors: sawnwood and sawlogs (1987); pulpwood, wood for energy and miscellaneous roundwood (1988); and wood-based panels (1989).

Duration: Continuing.

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 keep the structure and capacity of the wood-based panels industries under review to enable Governments to form their own industrial policies for the wood-based panels sector in the light of information on international conditions.

Work accomplished: The results of the latest enquiry were published.

Work to be undertaken: The next enquiry will be circulated in 1985 and the results published in 1986.

Duration: Continuing.

14.1.2.2. The sawmilling industry

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

Work accomplished: Preliminary results of an enquiry on the structure of the sawmilling industry were reviewed by the seminar on methodologies of data collection for the sawmilling industry, held in Finland in June 1984. The seminar was attended by members of the team of specialists on sawmilling questions and participants from developing countries. The results of the enquiry were revised, completed and published.

Work to be undertaken: The next enquiry will relate to the year 1988, and be circulated in 1989 for completion and publication in 1990. With assistance from members of the team of specialists on the sawmilling industry, the previous form of enquiry will be revised and submitted for approval to the sixteenth session of the Working Party.

Duration: Five years ending in 1990.

14.1.3. Trends, prospects and policies in forestry and forest products 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 (see 14.1.1.1.).

Work to be undertaken: Countries in southern Europe will be invited to prepare statements on the situation relating to the production and marketing of forest products of special interest of southern European countries (e.g. cork, resin, nuts, honey, etc.) for submission to the forty-fourth session of the Committee, which will decide on further activities.

Duration: One year ending in 1986.

SUBPROGRAMME 14.2: CURRENT FOREST PRODUCTS MARKET DEVELOPMENTS AND SHORT-TERM PROSPECTS, INCLUDING 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, consumption 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.

Work accomplished and to be undertaken: The annual session of the Timber Committee reviews short-term trends and prospects in the production, trade and consumption of coniferous and non-coniferous (including tropical) logs and sawnwood, wood-based panels and pulpwood, on the basis of estimates and other market information prepared by delegations for the year in progress and the forthcoming year. An analysis of market trends, based on the Committee's discussions is published after the session, as well as an Annual Forest Products Market Review based on data supplied by Governments in connection with project 14.6.1.

Duration: Continuing.

14.2.2. Standardization in the forest products sector

14.2.2.1. Review of standardization activities

Description: The Committee will keep under review needs and priorities for standardization in the field of forest products as well as progress in its own standardization project (14.2.2.2.). 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. The Committee will also keep under review work being undertaken by other organizations, notably ISO, on the reduction of the number of standard dimensions entering international trade, with a view to co-operating in such work as and when it considers it appropriate.

Work to be undertaken: The Timber Committee will review all its standardization activities, when it considers this appropriate in the light of developments, notably progress on project 14.2.2.2. It will also maintain co-operation with ISO and its appropriate technical committees.

Duration: Continuing.

14.2.2.2. Standardization of stress grading and finger-jointing of coniferous sawn timber

Description: The Committee will encourage the incorporation of the provisions of the revised ECE Recommended Standards on stress grading of coniferous sawn timber and on finger-jointing in structural coniferous sawn timber into national standards, and undertake further work to extend their international acceptability and application with a view to ensuring the rational and economic use of, and to facilitating trade in, coniferous sawn timber.

Work accomplished: The team of specialists on stress grading and finger-jointing of coniferous sawn timber met in 1984.

Work to be undertaken: The recommended standards will be reissued, modified in accordance with the proposals in TIM/R.94, Mr. Townsley (Canada), leader of the team of specialists on this subject, will report on developments in stress grading and finger-jointing to the Committee's forty-fourth session and make any recommendations he considers necessary. He will in particular inform the Committee of actions taken or proposed by ISO and by UNIDO. The Committee will decide on further work in the light of Mr. Townsley's report.

Duration: Two years ending 1986.

14.2.2.3. Problems of classification and definitions

Description: The Joint FAO/ECE Working Party on Forest Economics and Statistics, in co-operation with the Conference of European Statisticians, will keep under review and co-operate in the work of harmonizing multisector classifications and definitions (e.g. the CCC Harmonized System, ICGS, SITC, ISIC), with a view to ensuring that it follows developments in technology and in industrial and trade practice, and that the appearance of new products and changes in organizational structures are taken into account.

Work accomplished: The Working Party's fourteenth session reviewed proposals for the revision of the parts of the United Nations International Standard Industrial Classification of all Economic Activities (ISIC) relating to forestry and the forest industries. A draft proposal for the classification of occupations in forestry prepared by Mr. Heikinheimo (Finland) was discussed at the fifteenth session.

Work to be undertaken: Countries will submit comments and suggestions for the revision of the ILO International Standard Classification of Occupations (ISCO), which will be analysed and incorporated by a team of specialists into a unified submission to the ILO on behalf of the Working Party.

Duration: One year ending in 1986.

#### SUBPROGRAMME 14.3: FOREST WORKING TECHNIQUES AND TRAINING OF FOREST WORKERS

This subprogramme covers the activities of the Joint FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers, which normally meets biennially (1986, 1988, etc.), with meetings of its Steering Committee in the intervening years. 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 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.

##### 14.3.1. Silvicultural operations and general management aspects

##### 14.3.1.1. 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.

Work accomplished: The proceedings of the seminar on machines and techniques for plant production, held in 1983 in Czechoslovakia in collaboration with IUFRO, were published.

Work to be undertaken: Seminars on selected items will be held at intervals; in 1987 in the Federal Republic of Germany on the impact of acute forest damage on harvesting and silvicultural operations; in 1988 in the German Democratic Republic (subject to confirmation) on artificial and natural reforestation methods after harvesting. Provisional programmes for both seminars will be submitted to the sixteenth session.

Duration: Continuing.

##### 14.3.1.2. 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.

Work accomplished: The team of specialists met in 1983 and drew up proposals for the scope and programme for a seminar on methods and equipment for the prevention of forest fires to be held in Spain in 1986 and the role the team should play in its preparation. An enquiry was circulated to collect information on the basis of which the team will prepare basic papers on the main topics of the seminar.

Work to be undertaken: A seminar on methods and equipment for the prevention of forest fires will be held in Spain in 1986 in collaboration with IUFRO. The team of specialists will be actively involved in the preparation of the seminar. For

certain activities, e.g. forest fire statistics, the team will work in collaboration with the Joint FAO/ECE Working Party on Forest Economics and Statistics (project 14.6.2.4.).

Duration: Continuing: future activities will be decided by the Joint Committee at its seventeenth session in the light of the results of the seminar in Spain.

14.3.1.3. Methods for procedures for the preparation and implementation of working forest management plans

Description: The Joint Committee will survey practical methods and procedures for the preparation and implementation of working forest management plans, with special emphasis on the determination, collection and processing of relevant data with a view to assisting forest managers in the execution of their tasks.

Work to be carried out: A seminar will be organized in 1986 in the Netherlands on the preparation and implementation of forest management plans, in conjunction with the sixteenth session of the Joint Committee.

Duration: Two years ending in 1986. The Joint Committee at its sixteenth session should decide on a new project.

14.3.1.4. Development of methods and equipment for silvicultural operations and multiple use forestry under Mediterranean conditions

Description: The Joint Committee will promote the exchange of information and further the development of methods and techniques applicable to silvicultural operations and multiple use forestry under the particular conditions found in countries in the Mediterranean area, with a view to assisting the countries concerned in these fields.

Work accomplished: A team of specialists submitted a progress report on afforestation methods and equipment to the fifteenth session of the Joint Committee in May 1984. A seminar was held in Turkey in May 1984 on the rehabilitation of low-productivity forests and the proceedings of the seminar were published.

Work to be undertaken: The team of specialists will submit the draft study on afforestation methods and equipment to the sixteenth session of the Joint Committee, which will decide on what further action should be taken.

Duration: To be decided by the Joint Committee at its sixteenth session.

14.3.1.5. Standardization activities in the field of forestry, including standardization of concepts and terms used by the Joint Committee

Description: The Joint Committee will keep under review standardization activities in the field of forestry, notably for forest machinery, with a view to assisting countries in the development, and safety in use, of equipment and methods; and will establish definitions of currently used technical and economic concepts and terms, in order to facilitate exchange of information during meetings and on other occasions.

Work accomplished and to be undertaken: (a) The Joint Committee keeps close contact with ISO technical committees relevant to its work; and reviews, at each of its sessions, ISO standardization activities carried out over the past two years;

(b) the host country of seminars and authors of basic papers are invited, as and when appropriate, to prepare short lists of basic terms and concepts. These are reviewed by an informal group established during the seminar, and a revised glossary in the three working languages is subsequently prepared after the seminar, for incorporation in the proceedings.

Duration: Continuing.

14.3.2. Wood harvesting and transport

14.3.2.1. 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.

Work accomplished: The proceedings of the seminar on reducing forest biomass losses in logging operations, held in 1982 in the USSR, and of the seminar on silvicultural, technological, economic and other problems connected with the mechanization of thinning operations held in 1983 in the German Democratic Republic, were published. A seminar was held in the USSR in 1985 on mechanization of logging operations in mountainous regions.

Work to be undertaken: Seminars on selected items will be held at intervals: in 1987 in Turkey on the use of machines in harvesting operations; in 1987 in Sweden (subject to confirmation) on small-scale logging operations and machines. Provisional programmes for both seminars will be submitted to the sixteenth session.

Duration: Continuing.

14.3.2.2. Forest roads and transport of wood raw material

Description: The Joint Committee will promote the exchange of information on methods of construction of forest roads and on the transport by road or other means of wood raw material, with a view to assisting countries to rationalize their transport systems and reduce costs.

Work to be undertaken: A study tour on methods and techniques of forest road construction will be held (subject to confirmation) in France, the Federal Republic of Germany and Switzerland in 1988. The provisional programme will be submitted to the sixteenth session.

Duration: Two years ending in 1988.



14.3.2.3. 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.

Work accomplished: The final report of the team of specialists was circulated to member countries for comments and testing, and for comment also to IUFRO and other international bodies concerned.

Work to be undertaken: The sixteenth session of the Joint Committee will decide whether further work should be undertaken in this field and will consider a proposal for a new project on classification of techniques and equipment for harvesting and reforestation.

Duration: To be decided by the Joint Committee at its sixteenth session.

14.3.2.4. 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.

Work accomplished: Two special studies prepared in France on questions related to this project were circulated to member countries for information.

Work to be undertaken: The Joint Committee at its sixteenth session will decide on possible future activities.

Duration: To be decided by the Joint Committee at its sixteenth session.

14.3.2.5. 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.

Work accomplished and to be undertaken: A report will be presented to each session of the Joint Committee on activities in the field of wood harvesting for energy purposes being undertaken by other international organizations, notably the International Energy Agency and the FAO Co-operative Research Network on Rural Energy.

Duration: Continuing.

14.3.3. Vocational training, applied ergonomics, occupational safety and health

14.3.3.1. General questions of vocational training in forestry

Description: By keeping under review developments and trends in vocational training in forestry, the Joint Committee will assist Governments in planning their national vocational training policies and raising the efficiency of forest operations and in improving working practices with regard to safety and health.

Work to be undertaken: Seminars will be organized at intervals on selected problems. The seminar and study tour in 1986 in Austria, Federal Republic of Germany and Switzerland on the transfer of basic technology from the ECE region to other regions (project 14.3.3.5.) and the seminar in 1987 in Sweden on small-scale forest operations and machines (project 14.3.2.1.) will both consider vocational training aspects. A seminar dealing with problems concerning the employment of contractors in forest operations will be held in 1988. The co-ordinators will submit a draft proposal for the seminar programme, including a proposal for a host country, to the sixteenth session. The Joint Committee at its sixteenth session will discuss possibilities for organizing a seminar on vocational training aspects in forest operations in 1990.

Duration: Continuing.

14.3.3.2. Specific problems of vocational training in forestry

Description: The Joint Committee will provide Governments with guidance in connection with their services dealing with specific problems of vocational training.

Work to be undertaken: The sixteenth session of the Joint Committee will consider what further activities could be undertaken in this field.

Duration: Two years ending in 1987.

14.3.3.3. General questions of applied ergonomics, safety and health in forest operations

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, occupational safety and health, with a view to promoting safer working habits, preventing occupational injuries and diseases, increasing work performance and forest workers' satisfaction with their job.

Work accomplished: The proceedings of the seminar on ergonomics applied to forestry, organized by the Government of Austria in 1983 in collaboration with the Joint Committee and IUFRO, were issued. A seminar on occupational health and rehabilitation of forest workers was held in Finland in 1985.

Work to be undertaken: The seminar on the employment of contractors in forest operations, to be held in 1988 (project 14.3.3.1.), will deal with both training and safety and health aspects. The sixteenth session of the Joint Committee will discuss possibilities for organizing a seminar related to applied ergonomics in forestry operations in 1989.

Duration: Continuing.

14.3.3.4. Specific problems of applied ergonomics, safety and health in forest operations

Description: The Joint Committee will study specific problems related to ergonomics, safety and health in forest operations with a view to improving working methods and recommending safety standards in various operations.

Work to be undertaken: A special discussion on the use of chemicals in forestry will be held at the sixteenth session.

Duration: One year ending in 1986.

14.3.3.5. Transfer of technical information and experience

Description: The Joint Committee will promote the transfer of technical information and experience by the countries of the ECE region to those in other regions, with a view to assisting the latter to develop their forestry capabilities.

Work accomplished and to be undertaken: (a) wherever possible, the proceedings of Joint Committee seminars will be published by the host country or by other means;

(b) wherever possible, host countries of Joint Committee seminars will offer fellowships to assist participants from developing countries to attend the seminars of special interest for them;

(c) the preliminary results of the enquiry on the transfer of experience, information and know-how from the ECE region to other regions, presented to the fifteenth session, will be up-dated and completed, with the inclusion also of information on teaching aids and training materials, and submitted to the sixteenth session;

(d) a study tour and seminar will be held in Austria, the Federal Republic of Germany and Switzerland (subject to confirmation) in 1986 on the transfer of basic technology in forestry from the ECE region to other regions.

Duration: (a) and (b): continuing; (c) and (d): two years ending in 1986.

SUBPROGRAMME 14.4: ECONOMIC, TECHNOLOGICAL AND MANAGERIAL ISSUES FOR THE WOOD-WORKING INDUSTRIES

14.4.1. Development and introduction of new technologies in the wood-working industries, including furniture

Description: The Committee will further the exchange of information and experience on technological developments in the wood-working industries including the use of process- and quality-control equipment (electronics, robotics, lasers, etc.), with a view to helping countries to improve efficiency in the production of forest products, including furniture, to the benefit of the national economy and of the users of those products.

Work accomplished: Countries were invited to nominate members of a team of specialists on the furniture industry. Nominated specialists have been invited to draw up proposals for the scope of a seminar, possibly to be held in Romania in 1987 (subject to confirmation).

Work to be undertaken: A seminar will be held on new technologies in the wood-based panels sector. The secretariat will present preliminary proposals for the scope, programme, date and organization of the seminar to the Committee's forty-fourth session.

Duration: Three years ending in 1988.

14.4.2 Development of new products, markets and applications for forest products

Description: The Committee will further the exchange of information and experience on new products, markets and applications for forest products, with a view to helping countries to improve efficiency in the use of raw materials and products, and provide technologically and economically better products to the consumer.

Work accomplished: On the basis of a proposal by the Timber Committee office-holders, a consultant has been engaged to analyse the problems relating to the marketing and utilization of lower-quality hardwoods and to draw up proposals for appropriate activities by the Timber Committee, including the possible organization of a seminar.

Work to be undertaken: (a) The report of the consultant will be circulated to countries for comment and the adding of information on their respective situations, before being submitted to the forty-fourth session of the Committee;

(b) France and the United States of America, which have both offered to host a seminar on this subject, will discuss, with the secretariat, whether to propose the holding of one or two seminars on hardwood questions in 1987 and submit proposals for the scope and objectives to the Committee's office-holders before April 1986.

Duration: (a) One year ending in 1986; (b) Two years ending in 1987.

14.4.3. Energy conservation and self-sufficiency in the mechanical wood-processing industries

Description: The Committee will encourage the exchange of information in this field, with a view to furthering the conservation of energy and, where appropriate, the increase of energy self-sufficiency in the mechanical wood-processing industries.

Work accomplished: A 2nd meeting of the team of specialists on energy derived from wood was held in April 1985 at which draft reports prepared by members of the team were discussed.

Work to be undertaken: The reports will be revised and completed by the team members and disseminated. The Swedish Bioenergy Association will organize an open international seminar on energy derived from wood in October 1986. The team of specialists, meeting on the occasion of this seminar, or shortly after, will prepare proposals for further work in the wood/energy field, including the possibility of a seminar under the Committee's auspices. The Committee will decide on its future programme at its forty-fifth session.

Duration: Two years ending in 1987.

14.4.4. Management techniques in the wood-working industries

Description: The Committee will assist countries to introduce improved management techniques in the wood-working industries, with a view to raising efficiency and productivity through improved performance at the senior and middle-management levels.

Work accomplished: Countries were invited to provide information on the availability of education and training to management in the sawmilling industry.

Work to be undertaken: The secretariat will submit information on work being undertaken by other Principal Subsidiary Bodies of ECE in the field of management techniques to the forty-fourth session of the Committee, which will decide on possible further activities.

Duration: One year ending in 1986.

SUBPROGRAMME 14.5: ENVIRONMENTAL AND RESOURCE CONSERVATION ISSUES

(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.)

14.5.1. 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.

Work accomplished: The preliminary results of the enquiry on the role of the forest in supplying environmental and other non-wood goods and services were considered by the Working Party's fourteenth session. They were subsequently revised, completed and issued in a publication containing the results of the forest resource assessment (see also project 14.6.3.). The Working Party's fifteenth session reviewed the results of this project.

Work to be undertaken: A team of specialists will draw up proposals for follow-up action to the publication of The Forest Resources of the ECE Region (Europe, the USSR and North America) for submission to the sixteenth session of the Working Party. This project is linked with projects 14.6.3. and 14.6.4.

Duration: Two years ending in 1987.

14.5.2. Rational use of wood biomass and the reduction of losses

Description: The Committee will further the exchange of information and experience on the rational use of wood biomass and the reduction of losses, with a view to helping countries to optimize, subject to ecological restrictions, the use of available wood resources, including forest and industry residues and reduce losses, thereby contributing to the conservation of the forest resource. The project will include the use of wood as a feedstock for the production of chemicals.

Work to be undertaken: A seminar on a topic to be decided will be organized in 1988 or 1989.

Duration: Four years ending 1989.

14.5.3. Implications of air pollution damage to forests for the forestry and forest products sector

Description: The Committee will examine the implications of air pollution damage to forests for the forestry and forest products sector, taking into account the work being carried out by other competent bodies, notably the Executive Body for the Convention on Long Range Transboundary Air Pollution, the FAO European Forestry Commission, the European Economic Community and IUFRO.

Work accomplished: A team of specialists was constituted and held its 1st meeting in May 1985. Tasks were allocated to members of the team and proposals for future activities agreed on for submission to the Timber Committee.

Work to be undertaken: The team of specialists will continue its activities on the basis of its proposals to the forty-third session, including the holding of a meeting early in 1986.

Duration: Continuing.

14.5.4. Measures to be taken in the event of sudden and severe damage to forests

Description: The Committee will assist ECE countries faced by sudden and severe damage to their forests, notably that caused by fire, windblow, snow, and insect infestation, by bringing together accounts of relevant experience in other countries and a list of institutions which might be able to provide help and advice. In addition, it will promote the rapid international dissemination of reliable information on these events, in order to reduce disruption of roundwood markets.

Work accomplished: Reports on recent cases of sudden and severe damage to forests were submitted by a number of countries and disseminated by the secretariat.

Work to be undertaken: The mechanism set up by the Committee to exchange information in this field will be put into operation as and when necessary. The Committee will review progress at its forty-fourth session.

Duration: Continuing.

SUBPROGRAMME 14.6: FOREST AND FOREST PRODUCTS ECONOMICS AND STATISTICS

14.6.1. Publication of the Timber Bulletin

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.

Work accomplished and to be undertaken: The secretariat publishes 10 issues a year of the Timber Bulletin. Of these, two contain annual and quarterly statistics on production and trade, collected from Governments by means of quarterly questionnaires, and other relevant information, one contains annual data on trade flow data collected from the same sources, and three contain monthly and annual prices and price indices of forest products and related data extracted from official national publications. Country forest and forest products profiles are prepared by the secretariat, in collaboration with the Governments of the countries concerned, and published.

Duration: Continuing.

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

This programme element, together with programme elements 14.6.3. and 14.6.4., is carried out by the Joint FAO/ECE Working Party on Forest Economics and Statistics which normally meets biennially (1987, 1989, etc.). It co-operates with the Conference of European Statisticians.

14.6.2.1. Organization and periodicity of statistical data collection and dissemination

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

Work accomplished and to be undertaken: The Working Party formulates 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. Countries will review the procedures for filling in and returning the FAO/ECE Forest Products Questionnaires with a view to improving, where necessary, the punctuality and completeness of their replies.

Duration: Continuing.

14.6.2.2. Conversion factors

Description: The Working Party will review the conversion factors (raw material input/product output) 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.

Work accomplished: An enquiry was circulated in 1984 and the preliminary results presented to the fifteenth session of the Working Party.

Work to be undertaken: After review by the Working Party, the results of the enquiry will be revised, completed and issued. The Working Party will continue to review at four-yearly intervals (the next in 1989) conversion factors communicated by Governments in reply to a questionnaire.

Duration: Continuing.

14.6.2.3. Productivity in the forest sector

Description: The Working Party will collect statistics on and analyse trends in productivity in the forest sector. The purpose will be to provide information on the inputs of labour, capital, raw materials and energy in relation to outputs in member countries. This will assist Governments and other decision-makers in their policies towards the forest sector and in finding the appropriate solutions to technical and economic problems.

Work to be undertaken: Specialists nominated by countries will prepare reports on productivity questions, the scope of which will be agreed with the co-ordinator of this activity, who will be nominated by Finland, and the secretariat. The reports will be submitted to the sixteenth session of the Working Party.

Duration: Two years ending in 1987.



14.6.2.4. Statistics on forest health and forest damage

Description: The Working Party will assist countries to develop methodologies for the appraisal of forest health and forest damage; and will collect statistics on and analyse these questions. The purpose will be to provide reliable information on the vitality of forests and the extent of damage from such causes as fire, air pollution, storms, game, insects, diseases and so on. This information will assist Governments and other decision-makers in their policies towards forest management and conservation.

Work accomplished: The fifteenth session of the Working Party reviewed the preliminary results of the biennial enquiry on forest fires. It discussed papers describing methodologies for the evaluation of forest fire losses and of forest damage in general.

Work to be undertaken: (a) After revision and completion, the results of the enquiry on forest fires will be published. The next enquiry will be circulated in 1986 and the preliminary results submitted to the sixteenth session;

(b) A team of specialists will review the methodologies for evaluating forest fire losses in different countries and advise the sixteenth session on the possibility of adopting internationally acceptable guidelines on this question;

(c) Countries will be invited to review document TIM/EFC/WP.2/R.85 on forest damage statistics and to send answers to the secretariat to the questions posed in the introduction. The replies will be analysed by Polish specialists, in co-operation with other interested experts, who will submit a report to the sixteenth session.

Duration: (a) Continuing; (b) and (c) Two years ending in 1987.

14.6.2.5. Methodologies and data base for long-term outlook studies for the forest and forest products sector

Description: Methodologies and the data base needed for the analysis of long-term trends and prospects will be refined and strengthened. The purpose will be to prepare for future work that may be undertaken by the European Forestry Commission and the Timber Committee on monitoring developments in relation to forecasts in the latest study and to prepare for an eventual new long-term study. This will help to improve the reliability of information available to Governments and other decision-makers needed for the formulation of policies towards the forest and forest industries sector.

Work to be undertaken: A team of specialists will make recommendations to the Working Party's sixteenth session, taking TIM/EFC/WP.2/R.84 as a starting point and taking into account problem areas identified by the FAO/ECE ad hoc meeting to review the draft of the study.

Duration: Two years ending 1987.

14.6.2.6. Economic aspects of the fuller use of 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.

Work accomplished: A revised report was submitted by the delegation of the USSR to the fifteenth session.

Work to be undertaken: Further analysis of the issues will be carried out by specialists from the USSR on the basis of material which countries will be invited to furnish.

Duration: Two years ending in 1987.

14.6.2.7. Application of advanced methods of projection and modelling in the forest and forest products sector

Description: The Working Party will review advanced methods of projection and modelling, notably those developed in the context of the IIASA Forest Sector Project, and make recommendations as to methods which should be used in the work programme of the Timber Committee and the European Forestry Commission, notably in the long-term outlook studies. The purpose is to improve further the quality and reliability of such studies used as a decision-making tool by Governments and other policy-makers.

Work to be undertaken: The secretariat will prepare proposals, based on a consultant's report, which will be reviewed by the team of specialists established for project 14.6.2.5. The team will make recommendations to the Working Party's sixteenth session in 1987. The work will be carried out in co-operation with IUFRO.

Duration: Two years ending 1987.

14.6.2.8. Roundwood price statistics and specification

Description: The Working Party will improve the coverage of roundwood prices in the Timber Bulletin and other international publications and improve the comparability of series, notably by providing precise specifications for them. The objective is to improve the accuracy of studies by international agencies, Governments or research institutes which use roundwood price series.

Work to be undertaken: A team of specialists will be convened to review the existing system of publishing roundwood prices and to prepare recommendations for the Working Party's sixteenth session on how their coverage and comparability could be improved.

Duration: Two years ending 1987.

#### 14.6.3      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.

Work accomplished: The preliminary results of an enquiry on data relating to the general forest inventory and to forest biomass were considered by the fourteenth session of the Working Party, in conjunction with project 14.5.1. They were subsequently revised, completed and issued.

Work to be undertaken: A team of specialists will draw up proposals for follow-up to the publication of The Forest Resources of the ECE Region (Europe, the USSR and North America) for submission to the sixteenth session of the Working Party. Country correspondents will be invited to provide sets of basic inventory data for around 1970 and 1980 which are comparable and provide a precise indication of recent trends in the forest resource. This project is linked with projects 14.5.1. and 14.6.4.

Duration: Two years ending in 1987.

#### 14.6.4.      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.

Work accomplished: Participation of experts from other regions in the seminar on methodologies of data collection for the sawmilling industry was funded by the Government of Finland. A report Some standard practices in forestry statistical production in Finland, Norway and Sweden was prepared and submitted to the fifteenth session.

Work to be undertaken: Participation of experts from other regions will be encouraged in further work by the Working Party on classification and definitions (14.2.2.3.); and on forest resource assessment (14.5.1. and 14.6.3.). Countries will be invited to furnish information on their technical assistance programmes which are directed to assisting developing countries in the area of economics and statistics on the forest and forest industries sector. Member countries will be requested to prepare descriptions of standard practices in the production of forestry statistics along the lines of the report on the Scandinavian countries.

Duration: Continuing.

## Tabular presentation of Timber Committees programme of work for 1986-1990

Programme elements		1986	1987	1988	1989	1990
PROGRAMME 14: TIMBER		44th session of the Timber Committee	45th session of the Timber Committee (jointly with FAO European Forestry Commission (EFC) tour in Poland 2/)	46th session of the Timber Committee Study tour in .....1/	47th session of the Timber Committee Study tour in .....1/	48th session of the Timber Committee Study tour in .....1/
SUB-PROGRAMME 14.1: MEDIUM- AND LONG-TERM TRENDS, PROSPECTS AND POLICIES FOR FORESTRY AND FOREST PRODUCTS						
14.1.1. Appraisal of medium- and long-term timber trends and prospects						
14.1.1.1. Appraisal of long-term timber trends and prospects		Revision and publication of long-term study (EFTS IV)	Joint Timber Committee/FAO-EFC session to discuss policy implication of EFTS IV	Further activities as decided by the Committee		
14.1.1.2. Medium-term trends in the markets for specific forest products			Sawwood and sawlogs	Pulpwood, wood for energy and miscellaneous round-wood	Wood-based panels	Sawwood and sawlogs
14.1.2. Medium-term trends in the structure and capacity of wood-processing industries						
14.1.2.1. The wood-based panels industries		Survey of the wood-based panels industries				Survey of the wood-based panels industries
14.1.2.2. The sawmilling industry			Revised enquiry form submitted to Working Party		Circulation of enquiry	Publication of survey
14.1.3. Trends, prospects and policies in southern Europe		Statements by southern European countries submitted to Committee	Ad hoc meeting on the production and marketing of products of specific interest to Mediterranean forestry 1/			
SUB-PROGRAMME 14.2: CURRENT FOREST PRODUCTS MARKET DEVELOPMENTS AND SHORT-TERM PROSPECTS, INCLUDING INTERNATIONAL TRADE						
14.2.1. Review of production, trade, consumption and prices of forest products		Continuing				
14.2.2. Standardization in the forest products sector						
14.2.2.1. Review of standardization activities		Continuing; co-operation maintained with ISO and its appropriate Technical Committee				
14.2.2.2. Standardization of stress grading and finger-jointing of coniferous sawn timber		Publication of revised recommended standards	As decided by Committee			
14.2.2.3. Problems of classification and definitions		Preparation and submission of comments on ISCO				
1/ Host country to be decided.						
2/ Subject to confirmation.						

Tabular presentation of Timber Committee programme of work for 1986-1990 (cont.)

Programme element	1986	1987	1988	1989	1990
<b>SUB-PROGRAMME 14.3: FOREST WORKING TECHNIQUES AND TRAINING OF FOREST WORKERS (Activities of the Joint FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers)</b>					
14.3.1. Silvicultural operations and general management aspects	16th session of the Joint Committee, Netherlands	8th session of the Steering Committee	17th session of the Joint Committee in ..... 1/	9th session of the Steering Committee	18th session of the Joint Committee in 1/
			Seminar in the Federal Seminar in the German Republic of Germany on Dem. Rep. 2/ on the impact of acute artificial and natural forest damage on reforestation methods harvesting and silvi-cultural operations	Seminar in ... 1/ on Seminar in ... 1/ on (topic to be decided within programme element 14.3.1)	Seminar in ... 1/ on Seminar in ... 1/ on (topic to be decided within programme element 14.3.1)
14.3.1.1. Development and use of machinery and methods for stand establishment, including planting stock and equipment					
14.3.1.1.1. Forest fire prevention and control	Seminar in Spain		17th session to decide on future activities		
14.3.1.1.3. Methods and procedures for the preparation and implementation of working forest management plans	Seminar in the Netherlands on forest management plans. 16th session to decide on follow-up				
14.3.1.1.4. Development of methods and equipment for silvicultural operations and multiple use forestry under Mediterranean conditions	Submission of draft study to 16th session which will decide on further activities				
14.3.1.1.5. Standardization activities in the field of forestry, including standardization of concepts and terms used by the Joint Committee	Review by Joint Committee on basis of report from ISO		Review by Joint Committee on basis of report from ISO		Review by Joint Committee on basis of report from ISO
14.3.2. Wood harvesting and transport					
14.3.2.1. Development and use of logging machinery		Seminar in Turkey on use of machines in harvesting Seminar in Sweden 2/ on small-scale logging operations and machines			Seminar in ... 1/ on Seminar in ... 1/ (topic to be decided within programme element 14.3.2)
14.3.2.2. Forest roads and transport of wood raw material			Study tour in France, Fed. Rep. of Germany and Switzerland 2/ on methods and techniques of forest road construction		

- 1/ Host country to be decided.  
2/ Subject to confirmation.

Tabular presentation of Timber Committee programme of work for 1986-1990 (continued)

Programme element	1986	1987	1988	1989	1990
14.3.2.3.	Terrain classification from the wood harvesting point of view	16th session to decide on possible follow-up activities to report by team of specialists			
14.3.2.4.	Compatibility of harvesting and equipment with silviculture and environment	16th session to decide on new project			
14.3.2.5.	Harvesting of wood for energy purposes	Report by team of specialists on new developments to each session of the Joint Committee			
14.3.3.	Vocational training, applied ergonomics, occupational safety and health			Seminar in ..... 1/ on (topic to be decided within programme element 14.3.3.)	Seminar in ..... 1/ on (topic to be decided within programme element 14.3.3.)
14.3.3.1.	General questions of vocational training in forestry		Seminar in ..... 1/ on problems concerning the employment of contractors in forest operations		
14.3.3.2.	Specific problems of vocational training in forestry	16th session to decide on future activities			
14.3.3.3.	General questions of applied ergonomics, safety and health in forest operations	16th session to decide on future activities			
14.3.3.4.	Specific problems of applied ergonomics, safety and health in forest operations	Special discussion at 16th session on the use of chemicals in forestry			
14.3.3.5.	Transfer of technical information and experience	Submission of updated enquiry to 16th session. Study tour and seminar in Austria, Federal Republic of Germany and Switzerland 2/ on the transfer of basic technology			

1/ Host country to be decided.

2/ Subject to confirmation.

Tabular presentation of Timber Committee programme of work for 1986-1990 (cont.)

Programme element	1986	1987	1988	1989	1990
<b>SUB-PROGRAMME 14.4: ECONOMIC, TECHNOLOGICAL AND MANAGERIAL ISSUES FOR THE WOOD-WORKING INDUSTRIES</b>					
14.4.1. Development and introduction of new technologies in the wood-working industries, including furniture sector	Submission of proposals for seminar on new technologies in the wood-based panels sector	Seminar as decided by Committee			
14.4.2. Development of new products, markets and applications for forest products	Circulation of draft report and submission to Committee	Seminar or seminars on hardwood questions (in France and/or USA), as decided by Committee			
14.4.3. Energy conservation and self-sufficiency in the mechanical wood-processing industries	Seminar organized by Swedish Bioenergy Association on energy derived from wood. Meeting of team of specialists	Further activities, including the possible holding of a seminar, as decided by the Committee			
14.4.4. Management techniques in the wood-working industries	Submission of information on activities of other ECE Principal Subsidiary Bodies on management techniques				
<b>SUB-PROGRAMME 14.5: ENVIRONMENTAL AND RESOURCE CONSERVATION ISSUES</b>					
14.5.1. Quantification and evaluation of the environmental benefits of forests	A team of specialists will prepare proposals for follow-up to publication of The Forest Resources of the ECE Region for the sixteenth session of Joint FAO/ECE Working Party on Forest Economics and Statistics				
14.5.2. Rational use of wood biomass and the reduction of losses		Seminar in ... 1/ on a topic to be decided (or in 1989)			
14.5.3. Implications of air pollution damage to forests for the forestry and forest products sector	Meeting of team of specialists				
14.5.4. Measures to be taken in the event of sudden and severe damage to forests	Countries where sudden and severe damage to forests occur should send an assessment of such damage to the secretariat for rapid circulation. Review of system by forty-fourth session				

1/ Host country to be decided

Tabular presentation of Timber Committee's programme of work for 1986-1990 (continued)

Programme element	1986	1987	1988	1989	1990
SUB-PROGRAMME 14.6: FOREST AND FOREST PRODUCTS ECONOMICS AND STATISTICS					
14.6.1. Publication of the <u>Timber Bulletin</u>	Volume XXXIX Ten issues a year, two containing annual and quarterly statistics on production and trade, one containing trade flow data, three containing price data, two containing market reviews, one the Timber Committee Yearbook and one special issue	Sixteenth session of the Working Party Volume XL	Volume XLI	Seventeenth session of the Working Party Volume XLII	Volume XLIII
14.6.2. Selected problems of economics and statistics of forestry and forest products	Together with the programme elements 14.6.3. and 14.6.4., activities of the Joint FAO/ECE Working Party on Forest Economics and Statistics				
14.6.2.1. Organization and periodicity of statistical data collection and dissemination	Continuing review at each session of the Working Party				
14.6.2.2. Conversion factors	Issue results of latest inquiry Reports by specialists on productivity questions to the sixteenth session	Four-yearly survey at seventeenth session and publication			
14.6.2.3. Productivity in the forest sector	Biennial survey of forest fire statistics for review at sixteenth session and publication	Report by team of specialists on evaluating forest fire losses	Biennial survey of forest fire statistics for review at seventeenth session and publication		
14.6.2.4. Statistics on forest health and forest damage	Meeting of team of specialists Further analysis by USSR experts on basis of material furnished by countries	Proposals by team of specialists to sixteenth session	As determined by Working Party		
14.6.2.5. Methodologies and data base for long-term outlook studies for the forest and forest products sector	Submission of proposals by team of specialists (see also 14.6.2.5.)				
14.6.2.6. Economic aspects of the fuller use of forest biomass	Meeting of team of specialists	Report by team, with recommendations			
14.6.2.7. Application of advanced methods of projection and modelling in the forest and forest products sector	A team of specialists will make proposals for follow-up to the publication of <u>The Forest Resources of the ECE Region (Europe, the USSR and North America)</u> to the sixteenth session of the Working Party				
14.6.2.8. Roundwood price statistics and specification					
14.6.3. Forest resource analysis					
14.6.4. Transfer of economic and statistical methods and experience in the forest and forest products sector	Participation of experts from other regions in projects 14.2.2.3, 14.5.1 and 14.6.3 will be encouraged. Countries will be invited to furnish information on technical assistance programmes in the area of economics and statistics. Member countries will be invited to prepare descriptions of standard practices in the production of forestry statistics.				