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REPORT OF THE

Sault Ste. Marie, Ontario, Canada
14-17 October 1987

FOURTEENTH SESSION
OF THE NORTH AMERICAN
FORESTRY COMMISSION



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

PREVIOUS SESSIONS OF THE COMMISSION

First Session	Mexico, D.F., Mexico	24-29 July 1961
Second Session	Ottawa, Canada	17-22 June 1963
Third Session	Washington, D.C., U.S.A.	18-22 October 1965
Fourth Session	Mexico, D.F., Mexico	2-7 October 1967
Fifth Session	Ottawa, Canada	15-20 September 1969
Sixth Session	Washington, D.C., U.S.A.	27-31 March 1972
Seventh Session	Mexico, D.F., Mexico	4-8 February 1974
Eighth Session	Ottawa, Canada	23-27 February 1976
Ninth Session	San Juan, Puerto Rico, U.S.A.	13-17 February 1978
Tenth Session	Pátzcuaro, Mich., Mexico	18-22 February 1980
Eleventh Session	Victoria, B.C., Canada	16-19 February 1982
Twelfth Session	El Paso, Texas, U.S.A.	21-24 February 1984
Thirteenth Session	Chetumal, Quintana Roo, Mexico	3-7 February 1986

REPORT
of the
FOURTEENTH SESSION
of the
NORTH AMERICAN FORESTRY COMMISSION

held in Sault Ste. Marie, Ontario, Canada

14-17 October 1987

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SUMMARY OF RECOMMENDATIONS

A. ADDRESSED TO MEMBER GOVERNMENTS

The Commission:

1. Endorsed the recommendation of the Committee of Alternates that a specific programme for the proposed new study group on Forestry in the Struggle Against Desertification (Arid Land Management) be presented to it by Mexico and that interested parties in the USA and Canada be identified in order to make decisions about its establishment and operationalization (para. 29).
2. Agreed that FAO be invited by the USA (the host country) to co-sponsor, provide technical support to and participate in the International Wildfire Protection Conference to be held in Boston, Massachusetts, in July 1989 (para. 44).
3. Recommended to the Committee of Alternates that the three technical papers presented to the Commission, "Remote Sensing in Canadian Forestry: Current Status and Trends", by D.G. Leckie, "Mexican Non-Wood Forest Products", by L.A. Gonzalez Leija, and "Forest Tree Biotechnology: Unique Tools to Enhance Forest Productivity", by B.E. Haissig, be consolidated and published as an NAFC publication (para. 65).
4. Recommended that members of the Commission provide support to research and development of biotechnology as applied to forestry (para. 75).

B. ADDRESSED TO FAO

The Commission:

1. Recommended that FAO arrange to send copies of the reports of the Sessions of other Regional Forestry Commissions and their subsidiary bodies together with other publications they may produce to the members of the Committee of Alternates of the North American Forestry Commission (para. 32).
2. Recommended that adequate evaluations of the Tropical Forestry Action Plan be made at an early date, so that the effectiveness of activities could be judged and adjustments in the programme made as needed (para. 37).
3. Recommended that FAO strengthen its activities in the area of forest-based small-scale enterprises (both wood and non-wood based) for providing additional employment and income (para. 39).
4. Recommended that FAO, in cooperation with other organizations, explore options for funding the production of a Spanish language construction handbook and design manual on light woodframe structures appropriate for Latin American needs and potentials and determine how the publications might be used in expanding the use of light frame construction throughout Latin America. It also recommended that FAO identify possible contractors for producing these publications (para. 64).

5. Recommended that FAO intensify its activities in the field of remote sensing technology in forest management and development (para. 68).
6. Recommended that FAO give increased attention to the development/management of non-wood forest products (para. 71).
7. Recommended that FAO should support and encourage forest biotechnology research, including development of regulations for field testing (para. 75).

C. ADDRESSED TO NAFC SUBSIDIARY BODIES

The Commission:

1. Agreed that the Study Group on Forest Tree Improvement pursue their proposals dealing with (i) the preparation of a list of species potentially resistant to atmospheric pollution and capable of growing in Mexico City, and (ii) promoting conservation of genetic resources by documenting specific examples in need of conservation and proposing conservation methodology (para. 41).
2. Endorsed the proposal of the Study Group on Forest Tree Improvement to assist the Latin American Forestry Commission in the establishment of a Tree Improvement Study Group, and suggested that it take appropriate initiatives in that regard (para. 42).
3. Agreed that a letter be sent immediately by the Chairman of NAFC to Dr. Ian Smith, Director-General of the European and Mediterranean Plant Protection Organization, urging the inclusion of appropriate North American representation at the ad hoc scientific review of the pine wood nematode situation in February 1988.
4. Endorsed the proposal of the Study Group on Silviculture to issue a publication entitled "Useful Trees of Tropical North America", at a cost not exceeding US\$ 17,000, to be shared equally by the three member countries (para. 50).
5. Agreed that the Study Group on Multilingual Forestry Vocabulary proceed to prepare trilingual tapes of the Forestry and Forest Products Vocabulary and keep FAO informed of progress made (para. 54).
6. Recommended that the Study Group on Forest Engineering should focus on training in the use of appropriate tools and technology for the benefit of Mexico, in order to reduce work fatigue and improve work output (para. 57).
7. Endorsed the work plan of the Study Group on Atmospheric Pollution and Deposition. It agreed that the Group should study and define a programme related to climatic changes and make proposals to the next session of the commission on how to handle this aspect (paras. 58 and 60).

OPENING OF THE SESSION

1. The Fourteenth Session of the North American Forestry Commission was held in Sault Ste. Marie, Ontario, Canada, from 14 to 17 October 1987, at the kind invitation of the Government of Canada. The Session was attended by 39 participants from the three member countries of the Commission. The list of participants is given in Appendix B.

2. At the Opening Ceremony the delegates were welcomed by: His Worship the Mayor of Sault Ste. Marie, Mr. J. Fratesi, (representing the City of Sault Ste. Marie); Mr. K. Armson, Chief Forester of Ontario (representing the Ontario Ministry of Natural Resources); Mr. J.C. Mercier, Associate Deputy Minister, Canadian Forestry Service (representing the Government of Canada) and Dr. F.J. Keenan, Director, Forest Industries Division of FAO (representing the Director-General of the Food and Agriculture Organization of the United Nations).

3. The Chairman, Mr. J.C. Mercier, formally inaugurated the session.

4. The Commission designated the following as the members of the Drafting Committee: C. Clarke (Canada), M. Caballero Deloya (Mexico) and S. Kunkle (USA). C. Chandrasekharan (FAO) acted as Secretary and G.A. Steneker (Canada) as Rapporteur.

ADOPTION OF THE AGENDA

5. The Commission approved the Provisional Agenda (Appendix A). The list of documents considered by the Commission is given in Appendix C.

THE STATE OF FORESTRY IN NORTH AMERICA

a) Mexico

6. The Commission was informed that the National Forestry Development Plan of Mexico corresponded to the national goals for production, conservation and social welfare. The strategy in this regard envisaged coordinated action on the part of the federal and state governments, municipal governments and private enterprise.

7. During 1986 overall production of timber and pulpwood had amounted to only about 84 percent of the goals set, due to a fall in demand, resulting from the general economic crisis in the country. In the case of non-timber production, output had also fallen short of the target; however, during 1987 forest production had been showing an upturn.

8. In the areas of environmental protection, plantation development/ reforestation and improved supply of tree seeds, there had been consistent improvement during 1986-87.

9. The Commission noted with interest that the new 1986 Forest Law had prescribed broad-based participation of the private sector in the integrated management of forest resources and promotion of rural development through the participation of "ejidos". Norms had also been established by the Government to provide fiscal incentives to promote private investment in forestry.

10. In the field of research, the approach adopted had been to integrate forestry and agricultural research under one National Research Institute and emphasis had been placed on the training of researchers and on strengthening the research capability. The Commission was also informed about the arrangements to coordinate the activities of the three Ministries dealing with forestry, namely the Ministry of Agrarian Reforms, the Ministry of Urban Development and Ecology and the Ministry of Agriculture, through the establishment of a National Forestry Commission.

11. The scientific and technical cooperation existing with Canada and the USA under bilateral agreements and project assistance from the World Bank, UNDP and FAO were also described.

b) United States of America

12. The country registered record high levels of timber consumption during 1986-87. Consumption of wood and wood products continued to be high, as a result of which the timber harvest in 1988 was expected to remain at present levels.

13. There had been setbacks in softwood production in the southern U.S., with natural pine mortality there almost doubling during the past 10 years. Radial pine growth in the South had been down 20 to 30 percent, and conversion of timberland to other uses had also affected overall timber production. However, a number of measures proposed could reverse these trends.

14. 1987 had been the worst year of forest fires since 1910, with over 1,500 fires striking Oregon and California alone. During September 1987 more than 21,000 firefighters had been on the line. This was the third bad fire year in a row.

15. Insects and disease problems had increased dramatically in recent years, with yearly losses now running at about \$1.3 billion in value of wood, plus losses of the environmental amenities. Research on these problems included breeding of pest-resistant trees, development of biological controls and screening for safer pesticides. Another problem was the effects of acid precipitation and airborne pollutants on forests. Research on these effects and their monitoring were continuing.

16. The Commission was informed that the number of wildlife, bird and plant species in danger of extinction had grown from 64 in 1983 to 141 in 1987, increasing the need for efforts to preserve species. Recovery efforts were underway for selected high-priority species, for example, the bald eagle.

17. To combat soil erosion, the USA now had a Conservation Reserve programme, whereby landowners received financial assistance for removing erodible land from agriculture and putting it under trees or other permanent cover. This was probably the largest planting programme in the history of the nation. Another new programme, known as Challenge Grants, had been started in 1986. Under Challenge Grants, habitat improvements were financed through a matching of Federal and private organization funding, thus forging a new partnership. In similar fashion, the Forest Service was entering into partnerships with the private sector to design, finance and construct new recreational facilities. Many facilities needed modernization.

18. The Forest Service was cooperating with paper companies and universities under a Biopulping Consortium, attempting to bring biotechnology into the production of pulp.

19. A number of active programmes of cooperation with Canada and Mexico continued, including work on insects, disease, fire, silviculture and forest utilization, among other areas.

c) Canada

20. In July 1987, the Canadian Council of Forest Ministers (CCFM) had sponsored a Canadian Forestry Forum on a National Forest Sector Strategy which covered trade and investment, forest management, employment, research and development, and public awareness. Input had been received from all Canadians who had a stake in Canada's forestry sector.

21. The CCFM had also undertaken the development of a \$4 million National Awareness Campaign, directed at the urban adult population, concerning the importance of Canada's forest resource and the need for continued and improved forest management.

22. A forestry internship programme aimed at assisting university, forestry school and technical school graduates in finding meaningful employment had been launched in June 1987. The interns' salary was divided equally between government and the participating forest sector companies.

23. On the trade scene, negotiations that had been taking place between Canada and the USA concerning countervail duties on Canadian softwood lumber exports to the USA had resulted in Canada imposing a 15 percent export charge on Canadian lumber.

24. Throughout 1987 the USA and Canadian markets for market pulp and paper products had remained firm. The paper industry had continued to diversify production away from traditional commodities, and favourable exchange rates had helped improve overseas markets. Canadian softwood lumber sales had also remained healthy during 1987.

25. A Forest Fire Management Technology Transfer Centre had been officially opened in June 1986 in Maniwaki, Quebec, under the provisions of the Canada-Quebec Forest Resource Development Agreement. The Centre was using computerized fire management technologies developed by the Petawawa National Forestry Institute. In April 1987 the responsibility for forest and forest fire management in the Northwest Territories had been transferred from the federal to the territorial government.

26. Canada spent about \$70 million annually in bilateral international forestry assistance and had continued to participate in FAO's Tropical Forestry Action Plan. In addition, as a follow-up to the Silva Conference in France (1986), the Canadian International Development Agency had initiated the Africa 2000 Programme Network by allocating \$20 million over 5 years to combat desertification.

27. The Commission noted that Canada's offer to host the 19th IUFRO Congress in August 1990 in Montreal had been accepted.

REPORT OF THE COMMITTEE OF ALTERNATES

28. Since the last session of the Commission, held in Chetumal, Mexico, in February 1986, the Committee of Alternates had met twice. The report of the Committee presented to the Commission expressed satisfaction with the activities of the study groups and highlighted noteworthy achievements, such as the Forest Management Workshop held in Mexico in May 1987; recommencement of publication of 'Forest Fire News'; publication of 'Cone and Seed Diseases of North American Conifers' and 'Cone and Seed Insects of the Mexican Conifers', completion of an English-French/French-English version of the 'Vocabulary of Forestry and Forest Products'. The report emphasized the need for meaningful inter-group collaboration, realistic programmes and good communication between the study groups and the Committee of Alternates.

29. Following up on the suggestion made at the last session of the Commission to establish a new study group on Forestry in the Struggle Against Desertification (Arid Land Management), the Committee of Alternates recommended that a specific programme of work for the proposed group be presented to it by Mexico and that interested parties in the USA and Canada be identified, in order to make a decision about its establishment and operationalization.

30. Noting that an important aspect of study group activities is training, the Committee of Alternates encouraged member countries and FAO to explore ways to facilitate increased training opportunities.

31. The Commission endorsed the report of the Committee of Alternates and the recommendation mentioned in paragraph 29 above.

32. The Commission discussed the importance and need to know more about the activities of the other Regional Forestry Commissions so that meaningful cooperation could be developed on activities of mutual interest. It recommended that FAO arrange to send copies of the reports of the Sessions of other Regional Forestry Commissions and their subsidiary bodies together with other publications they may produce to the members of the Committee of Alternates of the North American Forestry Commission. A list of study groups of other Regional Commissions, with their composition, should also be sent.

FAO FORESTRY ACTIVITIES

33. The highlights of FAO's forestry activities during 1986-87 were reported on.

34. FAO's Regular Programme activities were geared to assisting member countries in: (i) increasing the production of goods and services from forests, while maintaining sustainable production capacities; (ii) enlarging the share of socio-economic benefits accruing from forest development; (iii) achieving an equitable distribution of such economic benefits from forest activities, particularly in rural areas; (iv) improving forestry's contribution to food production; (v) promoting increased participation of people in forestry programmes through appropriate institutional mechanisms; (vi) integrating forests with other land uses; (vii) broadening the range of forest products and promoting development of appropriate forest-based enterprises; (viii) adapting the structure of public forestry institutions to meet changing needs.

35. The Commission was provided with detailed information on the activities of FAO relating to: the Tropical Forestry Action Plan; geographic information systems in forestry; exploration, procurement and evaluation of seeds and in situ conservation of genetic resources; management of natural forests; forestry research, education and extension; international statistics in the forestry sector; trends and outlook in the supply and demand of forest products; development of wood-based industries; logging training needs and technical information; forest-based small-scale enterprises; the Special Action Programme on Forests, Trees and People; forestry and food security, and Technical Cooperation Networks.

36. The Commission was also informed about the size and scope of the Forestry Field Programme being implemented by FAO under various sources of funding.

37. The Commission commended FAO on progress made in the implementation of the Tropical Forestry Action Plan. It expressed the view that the Plan provided a needed framework for activities, and was helping forestry organizations and development agencies to focus on actions needed to combat tropical forest losses. Efforts should also be made to involve non-governmental agencies as fully as possible in the activities under the Plan. The Commission also recommended that adequate evaluations of TFAP be made at an early date, so that the effectiveness of activities could be judged and adjustments in the programme made as needed.

38. The Commission expressed keen interest in FAO's activities related to forest genetic resources and forestry and food production/security. Mexico requested the support of FAO in conserving forest genetic resources.

39. The Commission emphasized the importance of forest-based small-scale enterprises (both wood and non-wood based) in providing additional employment and income and recommended that FAO strengthen its activities in this area.

REVIEW OF STUDY GROUP ACTIVITIES

a) Study Group on Forest Tree Improvement

40. The Commission considered the report of the Study Group with special reference to its various tasks and achievements, and commended the Group for its valuable contributions.

41. The Commission agreed that the Group pursue their proposals dealing with (i) the preparation of a list of species potentially resistant to atmospheric pollution and capable of growing in Mexico City and (ii) promoting conservation of genetic resources by documenting specific examples in need of conservation and proposing conservation methodology.

42. The Commission further endorsed the proposal of the Study Group to assist the Latin American Forestry Commission in the establishment of a Tree Improvement Study Group, and suggested that it take appropriate initiatives in that regard. The Commission emphasized the need for FAO's continued support to national institutions dealing with the conservation of genetic resources.

b) Study Group on Forest Fire Management

43. The Commission expressed appreciation for the work of the Group in promoting the exchange of information and cooperation among member countries. The Group had been involved in conducting training workshops and seminars on

fire prevention and control, arranging exchange of experience and visits, promoting the use of improved equipment and tools, creation of public awareness through intensive campaigns and research on, and extension of, fire protection methods/measures.

44. The Commission noted that the 4th International Course on Combating Forest Fires would be held in Mexico City in January - February 1988 and that the International Wildfire Protection Conference would be held in Boston, Massachusetts, in July 1989. It agreed that FAO be invited by the USA (the host country) to co-sponsor, provide technical support to and participate in the latter meeting. This support would include assistance in preparation of the agenda and contribution of technical papers.

c) Study Group on Forest Insects and Diseases

45. The Commission noted the important work of the Study Group in the area of seed and cone pests. The Group had concentrated on the study of these pests over the past several years because of the need to protect seed supplies and meet reforestation and afforestation demands, the need to protect high quality and genetically improved seeds, and the need to reduce the current high dependency on pesticides in controlling these pests.

46. The Study Group had had a very active technical exchange programme. Since February 1986 there had been nine technical exchanges between the USA, Canada and Mexico. These exchanges had resulted in transfer of technology among specialists, and from specialists to on-the-ground practitioners.

47. The Commission agreed that a letter be sent immediately by the Chairman of NAFC to Dr. Ian Smith, Director-General of the European and Mediterranean Plant Protection Organization, urging the inclusion of appropriate North American representation at the ad hoc scientific review of the pine wood nematode situation in February 1988.

d) Study Group on Silviculture

48. The focus and highlight of the Study Group's activities in 1987 had been the "Secondary Forest Management Workshop" organized by Mexico and held in Chetumal, Quintana Roo. The Group had facilitated the participation of experts in each of the four main topics covered in this 10-day workshop: inventory, management, silviculture and regeneration.

49. The emphasis of the Group had been on tropical silviculture as requested by the Commission. A first edition of the Directory of Tropical Silviculturists had been released in 1986. The Commission noted the proposal of the Group to prepare a new/revised Directory, and asked the Group to provide more information on its budgetary implications to the Committee of the Alternates.

50. The Commission endorsed the proposal of the Group to issue a publication entitled "Useful Trees of Tropical North America" at a cost not exceeding US \$17,000, to be shared equally by the three member countries.

51. The next Study Group meeting would take place in Victoria, British Columbia to address work underway on the new Directory, the "Useful Trees" publication and to develop a programme for the planned Tropical Silviculture Research Workshop to be held in either Mexico or Puerto Rico.

e) Study Group on Multilingual Forestry Vocabulary

52. The report of the Study Group provided a history of forestry vocabulary development and discussed the advantages of producing the Vocabulary as an electronic document (on tape). The ability to work with the Vocabulary in an electromagnetic format (diskettes, tapes, etc.) had implications for planning national and international cooperation in terminological work.

53. The Canadian Forestry Service had prepared a translation of the English "Vocabulary of Forestry and Forest Products" and planned to publish the bilingual list (English/French, French/English) as an NAFC document. Mexico also intended to publish a bilingual list (English/Spanish, Spanish/English) in the immediate future.

54. The Commission noted that the immediate needs were to complete the production of the Vocabulary in trilingual tapes, produce review segments by subjects and amend them based on comments from specialists. Accordingly it agreed that the Study Group proceed to prepare trilingual tapes of the Forestry and Forest Products Vocabulary and keep FAO informed of progress made.

f) Study Group on Forest Engineering

55. The meeting was informed that the Study Group had met once in 1986 and had organized a study tour in Mexico. The study tour had revealed lack of training in logging. The work programme of the Study Group focussed strongly on technology exchange among the three member countries related to areas such as sawmill expertise, logging operations, maintenance of chainsaws, stove technology and a directory of expertise in forest engineering.

56. The Commission noted with interest FAO's work in the area of training in appropriate logging technology, with Trust Fund support. These activities were in the nature of training trainers in order to obtain a multiplier effect. The Commission was informed that FAO would release a Design Manual on Basic Logging Technology in English in the first half of 1988.

57. The Commission appreciated the fact that Mexico needed to improve labour productivity and working conditions rather than have technology which would replace labour. It recommended that the Group should focus on training in the use of appropriate tools and technology for the benefit of Mexico, in order to reduce work fatigue and improve work output.

g) Study Group on Atmospheric Pollution and Deposition

58. Since the last meeting of the Commission in 1986, the Study Group had met once, in May 1987, to consider the trends in air pollution hypotheses, and a research programme. The Commission noted and endorsed the work plan of the Study Group which included: a listing of training facilities and opportunities in pollutant-related problems; a comprehensive bibliography of all air pollution research; the translation into Spanish and French of manuals on air pollution symptomology; the preparation of a state-of-the-art report on forest decline in North America.

59. The Commission was informed that the next meeting of the Study Group would be held in Sault Ste. Marie, Ontario, Canada, in October 1988. It will be held jointly with the Study Group on Forest Insects and Diseases.

60. The Commission agreed that the Group should study and define a programme related to climatic changes and make proposals to the next session of the North American Forestry Commission on how to handle this aspect. In doing this the Study Group should take care not to dilute its activities on atmospheric pollution and deposition.

h) Study Group on Light Frame Structures

61. The Commission was informed that an important objective of the Study Group was to improve housing in Mexico, especially to meet housing needs of the rural population and the low income families in urban areas. Wood house construction was not widely accepted in Mexico and other Latin American countries, but their large timber resource coupled with their suitability for construction created an opportunity for the transfer of appropriate technology in light frame construction. Canada and the USA had a long history of wood house construction much of which could be beneficial to Mexico.

62. The Group had held its first meeting in July 1986 in Mexico City and selected two projects aimed at developing appropriate technology for Latin American house construction. One was to prepare a Spanish language construction handbook aimed at carpenters and builders; the other was to develop a simplified design manual for wood roof systems. Mexico had taken the lead in this area. A possible third project could be aimed at developing case histories of successful applications of wood frame houses in Mexico, and at identifying barriers to acceptance of wooden houses. The Group will hold its next meeting in February-March 1988 in Mexico.

63. The Commission was also informed that Mexican counterparts had been given exposure to the potentials of wood frame structures through study visits and the provision of published study materials. The Canadian and US manuals on light frame structures and the experience of these countries in wooden house construction were of relevance to Mexico.

64. The Commission recommended that FAO, in cooperation with other organizations, explore options for funding the production of a Spanish language construction handbook and design manual on light woodframe structures appropriate for Latin American needs and potentials and determine how the publications might be used in expanding the use of light frame construction throughout Latin America. It also recommended that FAO identify possible contractors for producing these publications.

TECHNICAL ITEMS

65. The Commission considered the documents pertaining to the following three technical items to be of excellent quality, and recommended that they be consolidated and published as an NAFC publication. It also emphasized that these important fields require further research and development and suggested that action be initiated by members of the Commission to ensure adequate interchange of information.

a) Remote Sensing (related to: Protection; Inventory and Analysis; Silvicultural Management)

66. This subject was introduced based on the document "Remote Sensing in Canadian Forestry: Current Status and Trends" prepared by D.G. Leckie. The paper provided details on the major advances in remote sensing technology and its application in forestry in Canada (eg. inventory update, monitoring of

land use changes, management of forest protection and harvesting). The meeting was shown an excellent video presentation, copies of which are available upon request from the Canadian Forestry Service.

67. The Commission recognized the invaluable role of remote sensing, particularly in the light of developments in the application of digital remote sensing techniques and in the growing use of Geographic Information Systems (GIS) for land use planning and resource management.

68. In view of the emerging importance of remote sensing technology in forest management and development, the Commission recommended that FAO intensify its activities in this field.

b) Non-wood Forest Products

69. This item was introduced based on the document "Mexican Non-wood Forest Products" prepared by L.A. Gonzalez Leija. It gave an account of the important contribution of non-wood forest products to the social and economic welfare of the country, through generation of rural employment and income.

70. Non-wood forest products consisted of a collection of varied products and the document dealt in detail with the system of growing/cultivation, management, harvesting and distribution/marketing of non-wood substances/products such as fibres, waxes, resins/gums, latex, spices, alkaloids/hormones and pharmaceuticals in Mexico. These were sources of export earning for the country and were basic raw materials for a large number of valuable consumer products. Other non-wood products included forage and food. The paper discussed the need for research in improving the economic contribution of non-wood forest products, including the need for genetic improvement.

71. During the discussion that ensued, the Commission emphasized the importance of non-wood forest products and the need for related research and dissemination of information. It recommended that FAO give increased attention to the development/management of non-wood forest products.

c) Biotechnology (Related to Protection; Tree Improvement; Nutrition)

72. This subject was introduced based on the document "Forest Tree Biotechnology: Unique Tools to Enhance Forest Productivity", prepared by B.E. Haissig. The document dealt with genetic modification through biotechnology applications to produce improved cultivars and to understand tree productivity.

73. The paper discussed the following related areas: namely

- Established research (including chemical tolerance and pest tolerance).
- Developing research (including disease and insect tolerance, salinity and alkalinity, secondary chemicals, mineral nutrition, water utilization, growth and wood characteristics).
- Fundamental research (including maturation, regeneration and evolution and genetic diversity).

- Need for supportive research (including vegetative regeneration, gene molecular biology, sexual regeneration, juvenile vs. mature performances, genetic diversity).
- Concept of integrated tree improvement (including elite cultivars, selection and genetic recombination).

74. The paper concluded that biotechnology is a long-term endeavour with important interim benefits; it requires continuing integrated research programmes; it benefits and is fostered from supporting research; field testing is mandatory.

75. In the discussion that followed, the Commission emphasized the potential role of biotechnology in forestry and recommended that the members of the Commission provide support to research and development of biotechnology as applied to forestry. Because biotechnology offers more potential reward to forestry, compared to agriculture, the Commission also recommended that FAO should support and encourage forest biotechnology research, including development of regulations for field testing, so that the necessarily long forestry field tests can be conducted with due regard to the environment, and without undue delay.

FOLLOW-UP ON RECOMMENDATIONS OF THE THIRTEENTH SESSION OF THE COMMISSION

76. The report prepared by FAO on the above was discussed. The Commission expressed satisfaction at the follow-up action taken. It reiterated its earlier recommendation regarding the need for an increased share of FAO's budget for forestry, especially in view of the launching of the Tropical Forestry Action Plan, while recognizing some progress in this regard.

MATTERS TO BE REFERRED TO THE ATTENTION OF THE COMMITTEE ON FORESTRY

77. The Commission decided that the following concerns and recommendations as had already appeared elsewhere in the report, be brought to the attention of the Committee on Forestry:

- (i) Member countries and FAO encourage and explore ways to facilitate training opportunities (para. 30).
- (ii) The need for adequate evaluations of the Tropical Forestry Action Plan at an early date to judge the effectiveness of activities and to make necessary adjustments (para. 37).
- (iii) FAO to strengthen its activities in the area of forest-based small-scale enterprises (para. 39).
- (iv) The need for FAO's continued support to national institutions dealing with conservation of forest genetic resources (para. 42).
- (v) FAO to co-sponsor, provide technical support to and participate in the International Wildfire Protection Conference scheduled for July 1989 (para. 44).
- (vi) FAO to be kept informed of the progress of the Study Group on Multilingual Forestry Vocabulary in preparing trilingual tapes of the forestry and forest products vocabulary (para. 54).

- (vii) FAO to support the preparation and dissemination of a Spanish language construction handbook and a design manual on light woodframe structures appropriate for Latin American needs (para. 64).
- (viii) FAO to intensify its activities related to remote sensing in forestry (para. 68)
- (ix) FAO to give increased attention to development/management of non-wood forest products (para. 71).
- (x) The recommendation made to the members of the Commission and FAO to provide support to research and development of biotechnology as it applies to forestry (para 75).

BUSINESS OF THE COMMISSION

- a) Other business: None
- b) Election of Officers

78. The following officers were elected by the Commission to hold office during the forthcoming biennium, the Vice-Chairmen being nominated in accordance with Rule II.1 of the Commission's Rules of Procedure:

Chairman: F.D. Robertson (USA)
First Vice-Chairman: M. Villa Issa (Mexico)
Second Vice-Chairman: J.C. Mercier (Canada)

The Commission appointed J.H. Ohman (USA) as Chairman of the Committee of Alternates and S. Kunkle (USA) as Rapporteur. Canada nominated G. Steneker and Mexico nominated M. Caballero Deloya as their representatives on the Committee of Alternates.

- c) Date and Place of Next Session

79. The USA invited the Commission to hold its next session in San Diego, California. The Commission thanked the USA for its kind invitation and agreed that exact dates, in the first quarter of 1990, be determined in consultation with the Director-General of FAO.

- d) Adoption of the Report

80. The draft report of the session was adopted by the Commission subject to suitable amendments and editing by the Secretary.

CLOSING OF THE SESSION

81. The heads of the Mexican and United States delegations thanked the Government of Canada, the State of Ontario and the City of Sault Ste. Marie for the excellent arrangements made for the session, the field trip and hospitality offered. Dr. F.J. Keenan expressed thanks on behalf of the Director-General of FAO. The Chairman thanked FAO, the conference staff and the delegates for their contribution to the success of the session.

82. The session was formally closed by the Chairman, Mr. J.C. Mercier.

NORTH AMERICAN FORESTRY COMMISSION

FOURTEENTH SESSION

Sault Sainte Marie, Ontario, Canada,
14-17 October 1987

PROVISIONAL AGENDA

1. Opening of the Session
2. Adoption of the Agenda
3. The State of Forestry in North America
 - (a) Mexico
 - (b) United States of America
 - (c) Canada
4. Report of the Committee of Alternates
5. FAO Forestry Activities of Interest to the Region
6. Review of Study Group Activities
 - (a) Study Group on Forest Tree Improvement
 - (b) Study Group on Fire Management
 - (c) Study Group on Forest Insects and Diseases
 - (d) Study Group on Silviculture
 - (e) Study Group on Multilingual Forestry Vocabulary
 - (f) Study Group on Forest Engineering
 - (g) Study Group on Atmospheric Pollution and Deposition
 - (h) Study Group on Light-frame Structures
7. Technical Items
 - (a) Remote Sensing (related to: Protection; Inventory and Analysis; Silviculture Management)
 - (b) Non-wood Forest Products
 - (c) Biotechnology (related to: Protection; Tree Improvement; Nutrition)
8. Follow-up on the Recommendations of the Thirteenth Session of the Commission
9. Matters to be referred to the attention of the Committee on Forestry
10. Business of the Commission
 - (a) Other Business
 - (b) Election of Officers
 - (c) Date and Place of Next Session
 - (d) Adoption of the Report
11. Closing of the Session

APPENDIX B
APENDICE B

LIST OF PARTICIPANTS/LISTA DE PARTICIPANTES

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Second Vice-Chairman Segundo Vicepresidente	M. VILLA ISSA (Mexico/México)
Secretary/Secretario	C. CHANDRASEKHARAN (FAO)
Rapporteur	G. STENEKER (Canada/Canadá)

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NORTH AMERICAN FORESTRY COMMISSION

FOURTEENTH SESSION

(Sault Sainte Marie, Ontario, Canada, 14-17 October 1987)

LIST OF DOCUMENTS

<u>Agenda Item</u>	<u>Code</u>	<u>Title</u>
2	FO:NAFC/87/1	Provisional Agenda
3(a)	FO:NAFC/87/2(a)	Report of State of Forestry in Mexico
3(b)	FO:NAFC/87/2(b)	Report of State of Forestry in USA
3(c)	FO:NAFC/87/2(c)	Report of State of Forestry in Canada
4	FO:NAFC/87/3	Report of the Committee of Alternates
5	FO:NAFC/87/4	FAO Forestry Activities of Interest to the Region
6(a)	FO:NAFC/87/5(a)	Report of Study Group on Forest Tree Improvement
6(b)	FO:NAFC/87/5(b)	Report of Study Group on Fire Management
6(c)	FO:NAFC/87/5(c)	Report of Study Group on Forest Insects and Diseases
6(d)	FO:NAFC/87/5(d)	Report of Study Group on Silviculture
6(e)	FO:NAFC/87/5(e)	Report of Study Group on Multilingual Forestry Vocabulary
6(f)	FO:NAFC/87/5(f)	Report of Study Group on Forest Engineering
6(g)	FO:NAFC/87/5(g)	Report of Study Group on Atmospheric Pollution and Deposition
6(h)	FO:NAFC/87/5(h)	Report of Study Group on Light-frame Structures
7(a)	FO:NAFC/87/6(a)	Remote Sensing (related to: Protection; Inventory and Analysis; Silviculture Management)
7(b)	FO:NAFC/87/6(b)	Non-wood Forest Products
7(c)	FO:NAFC/87/6(c)	Biotechnology (related to: Protection; Tree Improvement; Nutrition)
8	FO:NAFC/87/7	Follow-up on the Recommendations of the Thirteenth Session of the Commission
<u>Information documents</u>		
	FO:NAFC/87/Inf.1	General Information
	FO:NAFC/87/Inf.2	Provisional Timetable
	FO:NAFC/87/Inf.3	List of Documents

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