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CANADA'S INTERNATIONAL ROLE IN FORESTRY



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by
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ABSTRACT

Origin, structure and objectives are described of more than 30 international organizations concerned with forestry and forest allied industries. Canada's relations with these organizations through bilateral and multi-lateral agreements are outlined. They encompass all aspects of forestry from the establishment of trees and forests to the manufacture of wood-based products.

The organizations described include UN related organizations, Commonwealth organizations, a number of miscellaneous organizations, and Canadian technical assistance agencies. Also described are forestry-related bilateral agreements with various countries.

RÉSUMÉ

On décrit l'origine, la structure et les objectifs de plus de 30 organismes internationaux concernant la foresterie et les industries connexes. On parle des relations du Canada avec ces organismes au moyen d'ententes bilatérales et multilatérales ; ces dernières renferment tous les aspects forestiers, à partir de l'établissement des arbres et des forêts jusqu'à la fabrication des produits de bois.

Les organismes mentionnés comprennent ceux des Nations Unies, du Commonwealth, un certain nombre d'organismes canadiens divers et d'agences canadiennes d'aide technique. On expose aussi certaines ententes bilatérales relatives aux forêts, conclues avec différents pays.

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FOREWORD

This report briefly presents the origin, structure and objectives of the international organizations concerned with forestry, and forest-allied industries, with which Canadian foresters are involved. It identifies the various Canadian agencies participating in multi-lateral and bilateral forestry programs and agreements, and in particular indicates the general degree of involvement of the Canadian Forestry Service in these programs, where applicable.

Canada's participation in these international forestry activities encompasses all aspects of forestry, from the establishment of trees and forests to the finished manufacture of wood-based products. Many hundreds of Canadians from government and industry have participated in the programs, particularly in developing nations. In many cases Canada contributes more funds, on a per capita basis, towards the organizations involved than any other country.

International forestry offers a challenge to many Canadians, in terms of both human and natural resource development. In addition, Canada has benefited from the goodwill generated by its involvement in these programs, and has also benefited from the marketing of Canadian machinery, equipment and services in the cooperating and recipient countries. The interchange of concepts, ideas and personnel has also increased the knowledge and understanding of most participants. Finally, and most important, is the fact that many of the cooperative assistance programs have become practical realities and not just wishful ideals.

ACKNOWLEDGMENTS

This publication is based on a definitive draft report prepared in 1975 by John D. Dunfield of the Canadian Forestry Service *A Study of the Multinational and Bilateral Organizations and Canadian Agencies of Interest to the Canadian Forestry Service*. Indeed, this report is essentially an updating and revision of Mr. Dunfield's original work.

Thanks are owing also to several organizations, particularly the United Nations and its related agencies, the Commonwealth Forestry Association, the Canadian International Development Agency, the International Development Research Centre, the federal departments of Agriculture, Industry, Trade and Commerce, and Fisheries and Environment, for their assistance.



INTRODUCTION

Canada is well known abroad as a forest nation. Its foresters have been very active in international forestry, particularly among the developing nations of the world, because of their expertise in forestry-oriented activities and Canada's long-term commitments in helping less fortunate nations develop their natural and human resources.

As a result, many Canadian forestry agencies, and particularly the Canadian Forestry Service (CFS) of the Department of Fisheries and Environment (DFE), are involved with numerous international forestry-oriented organizations. However, the purpose and structure of these agencies often are relatively unknown to participating Canadians because they are not described in any one document, or can be found only in voluminous publications. Also, the Canadian Forestry Service involvement may be obscured or even appear nonexistent when the Service participates through the offices and staff of other agencies.

The purpose here, then, is to bring together the aims, objectives and structures of the principal international and Canadian agencies through which Canadian foresters are involved in multilateral or bilateral forestry programs. Included is an alphabetical listing of some of the many acronyms and other abbreviations in common use (Appendix II).

The report was prepared chiefly from a review of publications, interviews with representatives of various organizations in the National Capital Area, and through limited correspondence. The agencies referred to have been grouped into international and national categories, and sometimes identified individually.

Some organizations, such as the United Nations (UN) of the Post World War II era, encompass many disciplines of human activity and natural resource use. There are many divisions within these large agencies; in the case of the UN, the United Nations Economic and Social Council (ECOSOC) and the Food and Agriculture Organization (FAO) are two examples.

Other international organizations, though large in membership, are more limited in their objectives and work. Typical of these are the International Union of Forestry Research Organizations (IUFRO) and the Commonwealth Agricultural Bureaux (CAB), which principally encompass forestry or forestry-related disciplines.

All these organizations originated largely from a need for research and development, communication and cooperation among nations. Agencies like the FAO are directed chiefly towards undeveloped countries, where an infusion of educational or technical know-how and capital may be required to improve a national or local condition. Other organizations, such as IUFRO, were created from a desire and need to disseminate information between colleagues engaged primarily in research or marketing.

One of the criteria for deciding whether a given organization should be included in this report was the degree of governmental recognition it receives. With very few exceptions, only those organizations currently supported financially, or otherwise formally acknowledged by the federal government or by one or more of the provincial governments, are listed here.



Governmental, nongovernmental, international and national organizations often are difficult to identify or classify unless their aims, objectives and structure are closely studied. Furthermore, many organizations are an admixture of both the private and the public sector.

In this report, where applicable, the classification system for international organizations outlined in the *Yearbook of International Organizations* (1973) has been used as a guide, i.e. "all organizations established by agreements to which three states or more are parties, are considered multinational or international in nature". When two states have entered into an agreement or formed an association, the term "bilateral" has been used.

The Canadian Forestry Service is directly or indirectly involved with most of the organizations described in this report. The Forestry Relations Branch of the Service is probably the best source for information about Canadian participation in the various organizations.



THE UNITED NATIONS

Origin

The United Nations (UN) is composed of states that have accepted the obligations contained in its Charter. The name was first used in the Declaration of the United Nations of January 1, 1942, where 26 nations pledged common aggression against the Axis Powers. The UN Charter was drawn up by the representatives of 50 countries in San Francisco in 1945, and officially came into existence in October of that year, with Canada being one of the founding members. At present, 147 countries have membership in the UN.

Aims and Objectives

The aims of the UN are contained in the preamble to the Charter and are, broadly :

1. To maintain international peace and security.
2. To develop friendly relations among nations.
3. To achieve cooperation in solving international, economic, social, cultural and humanitarian problems.
4. To promote respect for human rights and fundamental freedoms.

Structure

The largest and probably most important international organization in which the Canadian Forestry Service participates is the UN and its Councils, Commissions, Agencies and Departments, such as the Food and Agricultural Organization (FAO), and the Forestry Department within FAO.

The UN Headquarters, its Secretary-General and General Assembly are located in New York. There are four regional Economic Commissions :

Economic Commission for Europe (ECE), headquarters in Geneva.

Economic Commission for Asia and the Far East (ECAFE), headquarters in Bangkok.

Economic Commission for Latin America (ECLA), headquarters in Santiago.

Economic Commission for Africa (ECA), headquarters in Addis Ababa.

In addition, the UN has information centers throughout the world but none are located in Canada.

The General Assembly is the main organizational unit of the UN. The five other UN divisions are the Security Council, the Economic and Social Council, the Trusteeship Council, the International Court of Justice, and the Secretariat (see Figure 1).

All member states are represented in the General Assembly, and all organizations within the UN submit annual and special reports to it. The Assembly elects the ten nonpermanent members of the Security Council, and all 54 members of the Economic and Social Council.

The UN is maintained by contributions from its members through assessments ; voluntary contributions are another source of funding. These funds are divided between the UN and its related agencies, with the General Assembly approving the budget and apportioning the expenses among the member countries.

The General Assembly deals with the work of the UN through seven main committees, on which all members may be represented. The Second Committee of economic and social concerns is of most direct interest to forestry.

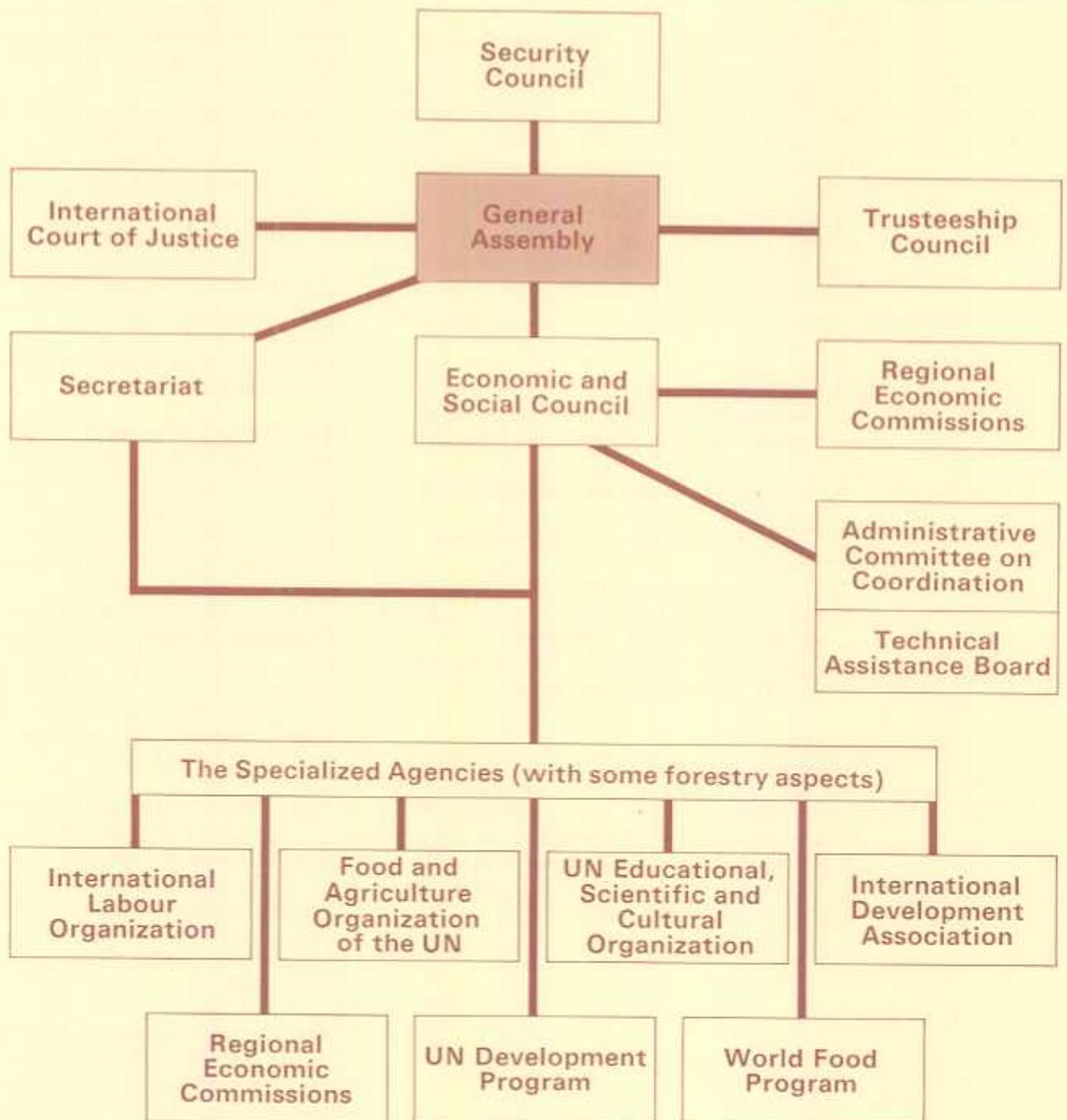


Figure 1. Structure of United Nations and related agencies



UN Economic and Social Council (ECOSOC)

This Council conducts studies and makes recommendations to the General Assembly on economic, cultural and social matters. It also calls international conferences on relevant subject matters and negotiates agreements with special agencies. The Council originally was composed of 27 members, but was increased to 54 members in 1972. It has three sessional committees — the Economic, Social, and Coordination Committees.

Many subsidiary and related bodies exist under ECOSOC, and they conduct much of the UN's work. Some of these organizations are — the Regional Economic Commission for Europe (ECE), the Governing Council of the UN Development Program (UNDP), the International Labour Organization (ILO), the Food and Agriculture Organization (FAO), and the UN/FAO International Governmental Committee on the World Food Program.

One task of ECOSOC is to bring these specialized agencies into a relationship with the UN by negotiating agreements with them. Representatives of these agencies can participate in, but cannot vote in ECOSOC.

UN Regional Economic Commissions

The basic aim of these Commissions is to assist in raising the level of economic activity in their respective regions and to strengthen economic relations between all countries, both within and without the region.

The Commissions are organs of ECOSOC and report annually to the Council. However, they have the authority to adopt their own rules of procedure and to appoint their own Chairmen. The Secretariat of each Commission is headed by an Executive Secretary. No Commission action can be taken in any country without the full agreement of that country.

Economic Commission for Europe (ECE)

The Economic Commission for Europe (ECE) was established by ECOSOC Resolution 36 in March 1947, to assist in the economic reconstruction of Europe, to raise the level of economic activity, and to strengthen the economic relations of the European countries. It is used by its Member Governments for promotion of international trade, scientific and technological cooperation, policy-making aimed at long-term economic growth, and improvement of the environment (see Figure 2).

Membership in ECE consists of the European members of the United Nations, the United States, the USSR and, since 1973, Canada — a total of 34 countries. The Commission meets annually in the spring and the permanent Secretariat is located in Geneva.

The ECE has 12 subsidiary bodies which act in a consultative and advisory capacity, reporting on their activities and making recommendations to the Commission. One of these, the ECE Timber Committee, is serviced by a joint secretariat of FAO technical experts and ECE general services staff, and meets annually in October.

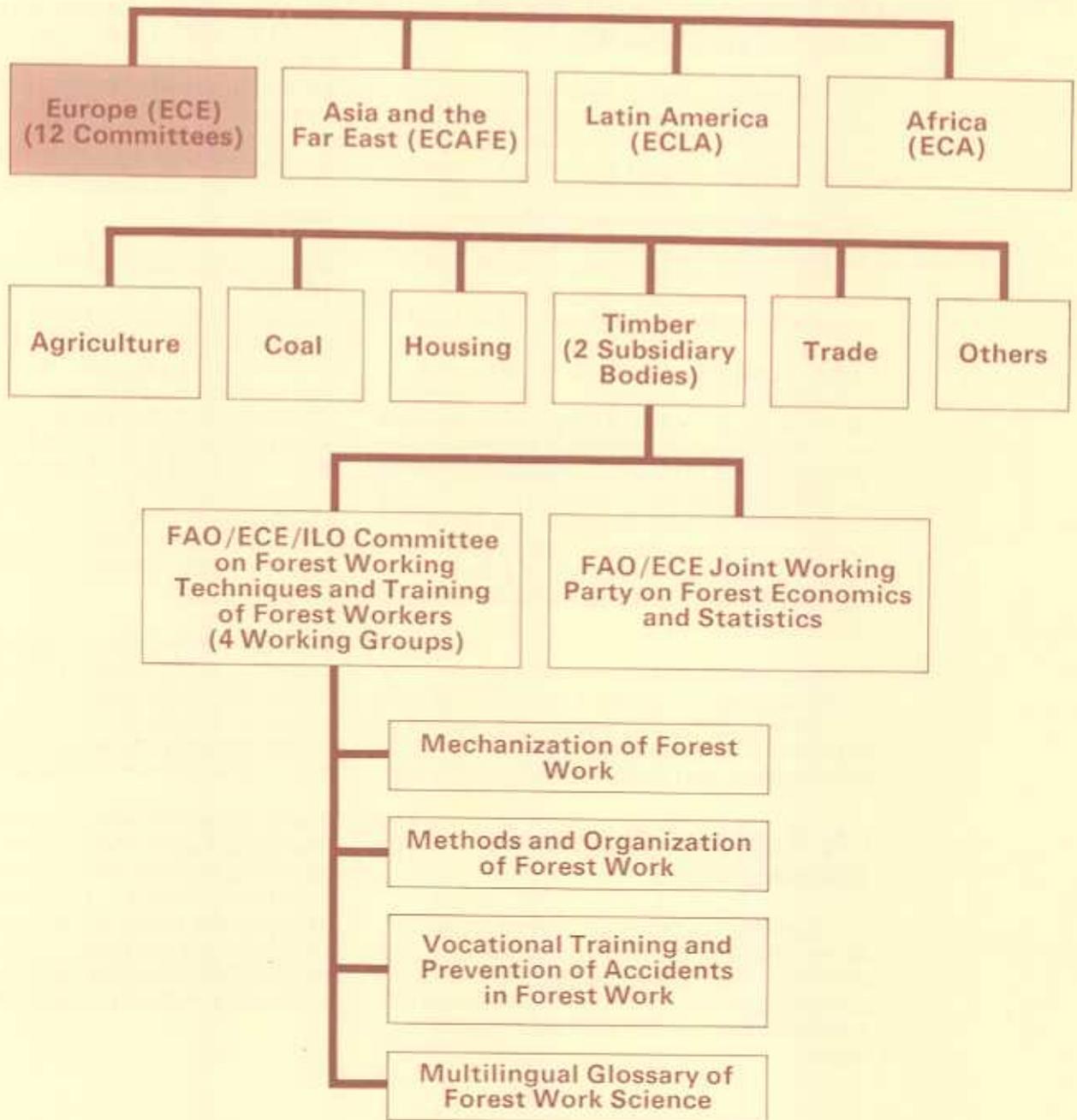


Figure 2. Structure of United Nations Regional Economic Commissions



In 1947, FAO gave the ECE Timber Committee the task of helping forest industries reequip themselves after World War II by raising production and arranging that short supplies of timber were directed where needed. Another prime consideration was that of sustained yield. A major thrust of the Committee's work in recent years has been the study of forests from an environmental point of view.

Canadian participation in the ECE Timber Committee is arranged through the Department of Industry, Trade and Commerce (ITC). The Canadian Forestry Service, Statistics Canada, and the Department of External Affairs (DEA) meet annually with ITC officers to discuss the Canadian Country Statement and prepare for the annual session of the Timber Committee. Canadian representation recently has been from ITC, Ottawa and London, from the Council of Forest Industries of British Columbia office in London, from the Canadian Permanent Delegation in Geneva, and from the Council of Eastern Forest Products Associations. In 1974, 1976 and 1977 the Canadian Forestry Service was also represented.

The ECE Timber Committee has two main subsidiary bodies of particular interest to Canadian foresters:

1. FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers.
2. FAO/ECE Working Party on Forest Economics and Statistics.

The FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers is concerned with efficiency of forest operations. Emphasis is on testing and introducing improved machinery and working methods, raising manual and mechanical skills, and elevating the workers' social and economic status when it lags behind that of their industrial counterparts. The work is carried out by four Study Groups, which organize technical study tours, seminars and training courses in the following sectors:

1. Mechanization of Forest Work.
2. Methods and Organization of Forest Work.
3. Vocational Training and Prevention of Accidents in Forest Work.
4. Multilingual Glossary of Forest Work Science.

To provide estimates of future trends for forest products, an ECE Technical Committee, with FAO collaboration, formed the FAO/ECE Working Party on Forest and Forest Products Statistics. This group regularly publishes reviews and bulletins on the statistics and trade of forest products. It is also concerned with the utilization of small wood, with sponsoring forestry tours of member states, and with passing on its findings to other UN Commissions in the less-developed regions of the world. Additional work consists of:

1. Classification and definition of forest products.
2. Conversion factors for forest products.
3. Forest inventory for the ECE Region.

Meetings of the Committee and Working Parties are sometimes attended by Canadian delegates from government, university or industry.



The International Labour Organization (ILO) also collaborates with the ECE and FAO in their joint programs and activities because of its interest in job training, optimum use of manpower, and improvement of the living and working conditions of labor.

Economic Commission for Asia and the Far East (ECAFE)

Although the structure of this Commission is somewhat similar to the ECE, some priorities, needs and conditions are different. The Commission has three Standing Committees: Industry and Natural Resources, Trade, and Inland Transport and Communication. Surveys have been conducted on the forest resources of some of the states in the region, but to date, timber has not played a role comparable to that of timber in the European area.

Economic Commission for Latin America (ECLA)

This Commission has established two permanent bodies – the Central American Economic Cooperative Committee, and the Trade Committee. These, in turn, have sub-committees or working groups.

Since little was known of the natural resources of Latin America, fact-finding surveys had high priority. Economic development in this area is closely associated with social and cultural conditions because of the prevalent high rates of birth and illiteracy among the people. Energy, water resources, transportation, agriculture, and trade have received the highest priorities for assistance and development.

Economic Commission for Africa (ECA)

This Commission was not established until 1958. Its aims are similar to those of the other Economic Commissions, but its terms of reference emphasize the social aspect of economic development. Like those of Latin America, most of the ECA countries are in the process of development. However, Africa has special problems, and personnel training is an important role for the Commission. The trainees receive instruction both within and outside the continent. Agriculture, trade, industry, transport, forestry and social problems are the main areas of the Commission's work.



UNITED NATIONS RELATED ORGANIZATIONS

General

Many agencies and organizations are related or responsible to the UN through special arrangements or agreements. In general, they work with one another and the UN through the ECOSOC. The activities of these agencies are chiefly to:

1. Supply international experts, consultants, special equipment and contract services.
2. Carry out surveys and feasibility studies.
3. Establish training courses and centers.
4. Set up research centers.
5. Provide fellowships and awards for people of low-income states.
6. Supply a portion of the funding for other agencies.

United Nations Educational, Scientific and Cultural Organization (UNESCO)

The principal aim of this Organization is to undertake educational, scientific and cultural programs among nations. UNESCO is composed of a General Conference of 142 member states (1976) and meets every two years to approve programs and budgets. It is run by an Executive Board of 45 members elected by the Conference. The Secretariat, with half its staff in Paris and half in the field, is responsible for the execution of the program. In most member countries there is a National Commission, including government and nongovernment personnel, which acts as a liaison body.

UNESCO has agreements with ILO and FAO, and with intergovernmental organizations that are not within the UN, such as the International Bureau of Weights and Measures and the Council of Central Europe. It also develops interservice cooperation by organizing meetings amongst scientists and other learned people, and promoting the exchange of information on natural and human resources. UNESCO participates in the UN Development Program by sending experts and supplying equipment to project areas, and by granting fellowships.

The International Hydrological Decade (1964-1974) was a UNESCO program. Canada was a major participant, and its forest hydrology program was one of the most widely recognized in the world.



Man and the Biosphere (MAB)

This program was officially launched in 1970 at a session of a UNESCO General Conference. Its Secretariat is in the Division of Ecological Sciences, UNESCO, in Paris.

The MAB program is in some respects a follow-up to the former International Biological Program (IBP) which wound down its activities in 1974. It has 14 project areas; those of most interest to Canadian forestry are: (i) ecological effects of different land uses and management practices on temperate forest landscapes; (ii) conservation of natural areas and of the genetic material they contain (the establishment of biosphere reserves); (iii) ecological assessment of pest management and fertilizer use on terrestrial and aquatic ecosystems; and (iv) research on environmental pollution and its effect on the biosphere.

Eighty-two countries support the MAB program, though in several cases it is little more than lip service. Canada's involvement was at one time guided by two committees – the federal government Inter-departmental Committee on MAB (ICMAB), and the Canadian Committee on MAB (CCMAB), which was sponsored by the National Research Council (NRC). CCMAB comprised persons from universities, provincial research agencies and industry.

The activities of both committees are now coordinated by a single secretariat provided by DFE. At their last meeting, in the spring of 1977, the committees disbanded and were replaced by a smaller executive committee headed by the Chairman of the Canada-MAB Committee. DFE still supplies the secretariat.

United Nations Development Program (UNDP)

The UNDP is the world's largest multilateral, technical assistance program. It supplies most of the funds for the numerous UN development projects throughout the world, and is specially active in areas of resource management, such as forestry. The Chief Administrator is located at UN Headquarters in New York, with a European Liaison Officer in Geneva. There are numerous field offices throughout the world, each headed by a resident UNDP representative.

Direct policy control is provided by a Governing Council composed of representatives of 48 nations, including both developed and developing countries. One-third of the membership changes each year. The Council meets twice a year to approve projects and allocate the necessary funds. This program is financed by voluntary contributions from 140 member countries of the UN each year, and from nongovernmental agencies.

Ten international organizations implement the program: the UN itself, the ILO, the FAO, UNESCO, the International Civil Aviation Organization (ICAO), the World Health Organization (WHO), the International Telecommunications Union (ITU), the World Meteorological Organization (WMO), the International Atomic Energy Agency (IAEA), and the Universal Postal Union (UPU).

Project plans for which assistance is sought are prepared in the developing countries – which usually bear more than half the cost. After UNDP approval, funds are allotted to one of the UN family of specialized agencies for execution of the project. FAO is the implementing agency for most forestry projects.



Before the formation of a Forestry Department within the FAO in 1971, many forestry projects were directed through the FAO Agriculture Department. These were undertaken chiefly in the developing nations, and consisted of forestry surveys, education, research and management. From 1959 to 1969, forestry projects accounted for about three percent of the total UNDP budget, or \$60 million.

By the end of 1976, UNDP was supporting some 8,000 projects of technical cooperation in more than 140 countries and territories of Asia, Africa, Latin America, the Middle East, the Mediterranean and parts of Europe. Moreover, through its network of more than 100 Country Offices, UNDP plays a significant role in coordinating the development planning and field development work of the UN system as a whole.

It is estimated that the total cost, on completion, of projects now under way will exceed \$5,000 million. The developing countries will meet at least 55 percent of this amount through the provision of personnel, buildings, supplies and facilities. The remaining 45 percent – financed by UNDP resources – will cover the expenses of deploying development experts, project equipment, and advanced technical services.

In 1977, the UNDP supported some 17 agencies and the field work of about 9,000 experts, and awarded more than 5,200 training fellowships. About half of the activities supported by the Program are designed to attract follow-up investment. Forty-seven percent of the industrial sector funds are expended in agriculture and allied fields, while education and training account for about 57 percent of expenditures in the human resource sector.

Canada's contribution to UNDP for 1977 was about \$34 million.

The great potential growth of the developing nations is revealed by the fact that these countries contain 66 percent of the world's population, but account for only 10 percent of the world's industrial production and 20 percent of world trade.

United Nations Environment Program (UNEP)

UNEP is an agency of ECOSOC with headquarters in Nairobi. It coordinates, assists and advises on environmental projects carried out within the UN system of agencies and structures. The principal objectives of the Program are:

1. To anticipate and prevent threats to human health and well-being posed by contamination of food, air and water.
2. To improve the quality of water for human use, so that all persons may have access to water of a quality compatible with the requirements of human health.
3. To help governments improve the quality of life in rural and urban settlements.
4. To assist governments in anticipating and preventing adverse effects of man-induced modifications of climate and weather.
5. To help governments take into account, in development planning, the relationship between population growth, density and distribution, available resources and environmental effects.

In 1972, a 58-member UNEP Governing Council was elected by the UN General Assembly from the various member countries. The Council and a small Secretariat are serviced from the regular budget of the UN; a voluntary environment fund carries the operational and administrative program. Canada is on the Council, and its delegates to the annual sessions are led by a senior official of the Department of Fisheries and Environment.



The Secretariat, which serves as a focal point for environmental action within the UN system, is headed by an Executive Director who is elected by the General Assembly for a four-year term. Maurice Strong of Canada held the office from its inception until December 1975.

Canada is contributing from \$5 million to \$7.5 million to UNEP over a five-year period.

In the forestry sector, UNEP is concerned chiefly with the encroachment of desert on productive lands, the management of tropical forests and the influences of both the forest and man on land ecosystems. UNEP supports forestry projects undertaken by both UNESCO and the FAO in these areas of activity.

United Nations Industrial Development Organization (UNIDO)

This organization promotes and accelerates the industrialization of developing countries, with particular emphasis on the manufacturing sector. Formed in 1966 by a General Assembly Resolution, by 1975 UNIDO was managing or supervising more than 2,000 industrial technical assistance projects in more than 100 developing countries.

A typical example of a UNIDO activity was a four-day meeting held in Montreal in May 1977, to promote the best use of forest resources. The event was attended by 57 senior government officials and executives from 24 developing countries, and representatives of 90 commercial organizations from 16 developed countries.

UNIDO is financed from various sources within the UN, such as the UN regular budget, UNDP funds, and through other volunteer governmental contributions.

The guidelines for UNIDO's work program are established by the 45-member Industrial Development Board of the UN. The Organization, headed by an Executive Director, has five divisions, with the Technical Cooperation Division having the responsibility for overall programming.

Close working relationships are maintained with the UN regional economic commissions and similar bodies. A joint FAO/UNIDO Working Group on Forest Industries met for the first time in 1977. The objective of this Working Group is to cooperate in project formulation and identification in order to maximize the impact of resources and to avoid duplication. With headquarters in Vienna, UNIDO publishes a large number of pamphlets and reports, including the Industrial Research and Development News (IRDN). A monthly periodical, the UNIDO Newsletter, has a wide readership.

World Association of Industrial and Technological Research Organizations (WAITRO)

This Association originated in 1967 when various representatives were meeting under the auspices of UNIDO, and had its inaugural meeting in 1970. The purposes of WAITRO are:

1. To identify and assess industrial research requirements on both a regional and international basis in the developing countries.
2. To serve as a means of disseminating information and as a meeting place for members to exchange ideas and knowledge.



There are two classes of membership, regular and associate, with the representatives of UN agencies having observer status. The Association is controlled by an Executive Committee with a President at its head, and a Secretary General who actually oversees the running of the organization. The first Secretary General was an officer of the British Columbia Research Council.

World Food Program (WFP)

The WFP was created by the international community to deal with several urgent problems. It was first proposed by the FAO in the 1940's as a plan to create a world food board that would buy and retain reserves of food for developing countries, and to cope with catastrophic occurrences. The WFP came into being in 1963 as a joint UN/FAO program. The Intergovernmental Committee (IGC), which represents member governments, is the executive body that makes policy decisions, approves the program of work and budget, and evaluates the programs. Canada has been a leading contributor to the WFP since its inception and is second in commitments after the United States.

The present aim of the Program is to help needy nations by using surplus food as subsistence capital to finance labor-intensive projects. As an example, food is given in lieu of money to the workers on part-time or full-time jobs. This use of food as a development tool in lieu of cash is an innovation in the UN system.

Although agriculture has priority in work projects, forestry is becoming more important. By June 1976, more than \$136 million had been spent on forestry developments. Activities included the planting up of 270 000 ha, the construction of some 12 000 km of forestry roads and more than 105 km of fire-breaks. Some 168,000 man-days of work were devoted to the 95 projects involved, and the beneficiaries, including dependents, totalled nearly one million people.

Canada's cash contribution to the Program, administered through the offices of CIDA, amounted to \$10 million in 1976-77. Examples of food aid provided in 1976-77 are 400 000 tonnes of grain and grain equivalent worth about \$72 million, including distribution costs, and powdered milk worth \$3.5 million.

Food and Agriculture Organization (FAO)

The United Nations Conference on Food and Agriculture met at Hot Springs, Virginia, in 1943, and drew up the draft Constitution. After this Constitution had been accepted by more than 20 nations, the first session of the Conference met in Quebec City, in October 1945, and formed the Food and Agriculture Organization (FAO). Lester B. Pearson was the Conference Chairman. In November 1977, the 19th Session of the FAO Conference was held in Rome, the main items on the agenda being the approval of the program of work and setting the budget for the 1978-79 biennium.



FAO's main objectives were to raise the world's levels of nutrition and standards of living, with particular reference to the rural populations in the developing and war-torn countries, by improving the production and distribution of agricultural products. Over the years, the objectives have been broadened to include the social and economic well-being of all people.

FAO is a special agency of the UN family of organizations. It is an autonomous body with its own constitution, policy-makers and executive officers. It also has its own budget, secretariat and administration facilities. It works closely with the UN and reports to this body through ECOSOC.

Each member nation has one vote in FAO; as of January 1978 there were 144 members. Developing nations constitute about 90 percent of the membership. Policy is formed by the FAO Conference, which comprises one delegate for each member nation and associate member nation, and meets for about three weeks every two years. Between sessions, the organization is run by a Council of 49 representatives elected by the Conference. The Council, headed by a Chairman appointed by the Conference, supervises the work of the FAO, reviews the world food situation and related disciplines such as agriculture and forestry, and makes recommendations to the Conference.

The FAO Conference may appoint any committee or commission it deems necessary, and allocate to such bodies any items or functions on the Conference agenda.

FAO is financed by annual contributions by Member Nations and Associate Members. The Member Nations' contributions are assessed on a scale determined by the Conference; contributions from Associate Members, if possible, are calculated on the same basis, but the amount obtained is reduced by 40 percent to take into account the difference in their status. Canada's financial contribution to FAO is paid from the budget of the Department of External Affairs; in 1978 it will be \$3.9 million.

FAO grants fellowships and conducts training courses for its own staff and for the indigenous people of the member states. More than 400 Canadians have served with this Organization since its inception. In June 1977, there were 76 Canadians working with the Organization.

FAO officers must adapt their methods to their place of work, and must conduct their work through persuasion, teaching and demonstrations. FAO member countries represent more than three billion people; the FAO may be likened to a world Department of Agriculture, Fisheries and Forestry. The only major country not in FAO is the USSR.

Liaison between the FAO and Canada is undertaken chiefly through an Interdepartmental FAO Committee that includes representatives from CIDA and the departments of Agriculture, Health and Welfare, External Affairs, Fisheries and Environment, Finance, Statistics Canada, and Industry, Trade and Commerce (ITC). The Committee's role is mainly advisory, and its functions include liaison, information dissemination and policy formulation. The advisory role relates to the overall FAO program and budget, and their effect on Canada. The Committee also prepares reports and position papers. The Department of Agriculture chairs the Interdepartmental Committee.



In most FAO programs, human and natural resource development are very interwoven from the standpoint of both manpower and economics. Consequently, the various Commissions, Committees and Departments within FAO must have full liaison and cooperation with one another to achieve the Organization's goals and objectives.

FAO Forestry Department

The FAO is divided into numerous departments and committees. Until 1971, forestry was included in the Department of Agriculture, but in that year the Forestry Department was created. It is headed by an Assistant Director-General located in Rome, at FAO headquarters. The Department is subdivided into two main divisions – Forest Resources and Forest Industries (see Figure 3). It has regional representation in Accra (Africa); Bangkok (Asia and the Far East); Geneva (Europe); and Santiago (Latin America).

The Forestry Department is playing an increasing role in the FAO, providing market surveys, feasibility studies, counselling, and assisting in the establishment of forest industries. These industries contribute more than \$1 billion a year to the economies of developing countries, through exports of forest products.

The Department's budget for the 1978-79 biennium is about \$8.5 million, approximately 4.1 percent of the total FAO budget. Field projects are financed principally from the UNDP Special Fund. The cost of these forestry operations for the 1976-77 biennium was approximately \$35.4 million, 87 percent of which came from UNDP and the balance from trust funds. As of 1978, the forestry projects are grouped under three broad technical programs:

1. Forest Resources.
2. Forest Industries.
3. Forestry Institutions, Planning, Statistics and Trade.

The forestry field staffs are assigned various programs depending on the origin of their recruitment base, their expertise and the source of funds supporting the project. The UNDP administrator's 1972 annual report to the Governing Council stated that, although agriculture still remains the dominant concern for UNDP, there is a trend to reduce the importance of this sector in favour of industrial development. This change results principally from the sectoral choices of the member countries.

Like many other agencies today, the FAO, its Forestry Department, and the cooperating countries are finding it difficult to continue projects at their past level of effectiveness because of inflation; certain services must be reduced because of insufficient budget increases.

The Department publishes a quarterly, *Unasylva*, which is essentially an international journal of forestry and forest industries, and associated resources such as water and wildlife.

FAO Committee on Forestry (COFO)

To help the FAO perform its functions, the FAO Council appoints various committees, including a Committee on Forestry. Members of this Committee, appointed for a period of two years, are – as far as possible – the most senior officers responsible for forestry in their respective nations. By the end of 1977, 74 nations, including Canada, will have membership on COFO. The federal government and some provinces will be represented.

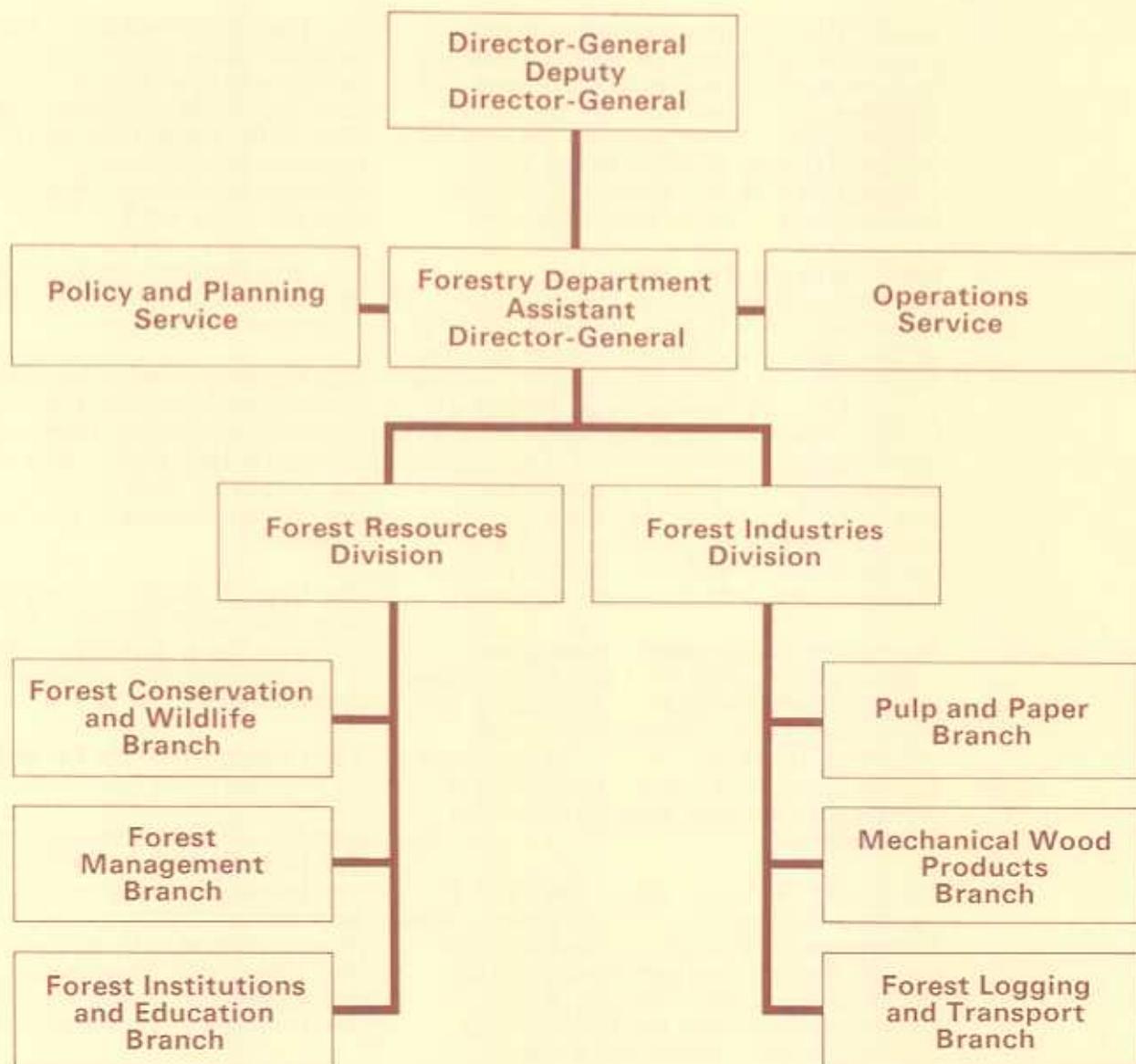


Figure 3. Physical Structure of the Forestry Department of FAO



The main purposes of this Committee are to :

1. Conduct periodic reviews and appraisals of forestry problems of an international nature.
2. Review the forestry program of the FAO.
3. Advise the Director-General of the Forestry Department program activities.
4. Review specific matters referred to it by the Director-General or a Member Nation.
5. Report to the FAO Council.

COFO normally holds one session during each biennium, usually in the nonconference years; the Third Session was held in Rome in 1976. The Committee holds additional sessions if called by the Director-General, or on a request submitted in writing to the Director-General by a majority of the members.

At the 1976 session the major recommendation of the Committee was that FAO's forestry activities be concentrated in six major areas :

1. Tropical forestry development.
2. Conservation.
3. Forest industries.
4. Promotion of trade in tropical timber.
5. Forestry institutions.
6. Forest policy analysis, planning and statistics.

The Committee also made the following recommendations : (a) that forestry for community development be given high priority in FAO's program of work ; (b) that national forest policies support the establishment and management of forests for local community development ; and (c) that high priority be given to the development of small pulp and paper mills with low capital cost, which would put investment in that industry within the reach of many developing countries.

Panel of Experts on Forest Gene Resources

This Panel helps plan and coordinate FAO's efforts to explore, utilize and conserve the gene resources of forest trees. In particular its task is to help prepare a detailed short-term program and draft a long-term program for FAO's action in this field, and to provide information to member governments. The Panel was established in 1967 and the experts are selected on an individual basis.

Canada has membership on the Panel, and a Canadian Forestry Service geneticist at its Petawawa Forest Experiment Station (PFES) is the National Coordinator of Information on Forest Genetic Resources.

Committee on Wood-Based Panel Products

Canada is a member of the Committee on Wood-Based Panel Products, established by the Director-General of FAO in 1965 to :

1. Advise the Director-General on matters relating to panel products.
2. Indicate special topics or sectors that should be studied.
3. Furnish guidance and technical, statistical and economic data pertaining to wood-based panel products that should be published internationally.

Membership consists of no less than 15 and no more than 30 Member Nations or Associate Members, selected by the Director-General of FAO as representing nations involved in the consumption and/or production of wood-based panels. Personnel from industrial companies make up a large proportion of the membership on this Committee.



Committee on Forest Development in the Tropics

This Committee was established by the Director-General of FAO in 1966. It studies the technical, economical and social problems relating to the development of tropical forests, particularly in developing countries, with emphasis on production, utilization and conservation, as well as the marketing of forest products.

Membership comprises 15 to 30 Member Nations selected by the Director-General as reflecting the interests of both the foresters and forest industries, as these relate to the major types of tropical forests and forest products in different regions of the world. Canada is not a member, but the Canadian International Development Agency (CIDA) and the International Development Research Centre (IDRC) attend as observers.

Advisory Committee of Experts on Pulp and Paper

This Committee advises the Director-General on the evolution and implementation of the FAO programs in the field of pulp and paper, and on the methods of program development.

It was established by the Director-General in 1960 on authority of the Tenth Session of the Conference, and holds meetings annually.

Membership comprises 12 to 20 experts appointed by the Director-General in their personal capacity. The President of the Canadian Pulp and Paper Association is a member of the Committee, and the CPPA Vice-President is Alternate.

Advisory Committee on Forestry Education

The Director-General receives advice from this Committee on the implementation of the FAO programs in forestry education, and on the ways in which those programs should be developed.

The Committee was established in 1947, reconstituted in 1955 as an FAO Panel on Education in Forestry, and converted to a Committee in 1963 by the 12th Session of the Conference. It holds meetings every one to two years, and membership comprises 12 to 20 members.

The Dean of the Faculty of Forestry, University of Toronto, was the first Canadian member of the Advisory Committee on Forestry Education, and later became its Chairman. The Canadian membership rotates about every two years between the faculties of forestry of the Canadian universities. The current Canadian member is the Dean of the Faculty of Forestry of the University of New Brunswick.

Forestry Commissions

The six Regional Forestry Commissions of FAO are intergovernmental bodies established by the Conference to exchange information and to advise on the formulation and implementation of policy. Canada is a member of the North American Forestry Commission (NAFC), which has secretariat services in Mexico City.

The Canadian Forestry Service is responsible for designating Canadian members to the various Study Groups within the NAFC, drawing on the federal and provincial governments, universities and industry. Most of the Study Groups have one or more Canadian Forestry Service representatives.



The NAFC is composed of Mexico, United States and Canada, with the Chairmanship rotating between them. The Director-General of the Canadian Forestry Service was Chairman of the Eighth Session, held in Ottawa in 1976. At present, the Chief of the U.S. Forest Service is Chairman.

A Committee of Alternates, made up of a senior representative from each member country, carries on the work of the NAFC between sessions, which are held every two years.

The NAFC Study Groups are:

1. Fire Management.
2. Forest Insects and Diseases.
3. Forest Tree Improvement.
4. Wildlife and Outdoor Recreation (expected to be split in two groups).
5. Forest Engineering.
6. Remote Sensing.
7. Silviculture.

The Silviculture Study Group was the latest to be set up by the NAFC. It held its inaugural meeting in Atlanta, Ga. in July 1977, under the Chairmanship of the Director, Tropical Forestry Institute of the U.S. Forest Service in Puerto Rico. Canada (Canadian Forestry Service), U.S.A., and Mexico have representation. Initially this Group will concentrate on subjects of particular relevance to the tropics; during this period, Canada's participation will be little more than maintaining a watching brief.

Canada is also represented on other committees and commissions, such as the International Poplar Commission (IPC), established in 1947 and now included in the framework of the FAO. The IPC studies all aspects of poplar and willow species, promotes an exchange of ideas and material between research workers, producers and users, organizes congresses and makes recommendations to the FAO Conference and the National Poplar Commission of the member countries. The IPC is open to all FAO members or Associate Members that accept the Convention approved by the Tenth FAO Conference in 1959. Canada was host to an IPC meeting in 1968.

The subsidiary bodies of the IPC consist of an Executive Committee and three Working Parties:

1. Exploitation and Utilization of Poplar Wood.
2. Poplar Diseases.
3. Poplar Insect Pests.

FAO Associate Expert Scheme

Canada first participated in this Scheme with the FAO in 1971. Under the program, recent university graduates from Canada in various resource disciplines are sent by the FAO to developing countries for a period of one to three years to assist FAO senior field officers. All expenses of the Associate Experts are paid by the sponsoring country; Canada, through CIDA, has pledged to sponsor five people at a cost of between \$100,000 and \$150,000 a year.

Although there are no forestry graduates currently sponsored by Canada, Canadian foresters have been assigned in the past to Chile and the Malagasy Republic.



The World Forestry Congress

Although this Congress does not fall exactly within the jurisdiction of FAO, that Organization is the aegis under which the Congress carries out most of its activities. It consists of scientists, technicians, administrators and others interested in forestry and its allied fields. The Congress is open to Participants and Associate Participants from countries that are members of the FAO, the UN and its specialized agencies. A General Committee plans and processes the work of each Congress, and consists chiefly of members from the host country and the FAO, with the latter providing an executive secretary.

The Congress serves as a forum for the exchange of views and experience, and for the discussion of matters concerning all aspects of forestry, that may lead to the formulation of broad recommendations applicable on a regional or world-wide basis. The functions of the Congress are advisory – the implementation of its recommendations is a matter solely for those in governments, international organizations, scientific bodies, etc.

The Congress normally meets every six years. The Seventh World Forestry Congress met in Buenos Aires in October 1972, attended by about 2,000 delegates from 87 countries. The Eighth Congress is to be held in Jakarta in 1978.

The Canadian Forestry Service sets up national committees to coordinate Canadian participation at each Congress; the members are selected from government agencies, universities and other interested bodies. About 30 Canadians attended the Seventh Congress, and many of them gave papers at the various Commissions representing Silviculture, Forest Protection, Academic Studies, Conservation, Logging Research, Economics, Planning and Industry.

International Labour Organization (ILO)

The ILO was established in 1919 as an autonomous institution of the League of Nations. In 1946, it became the first specialized agency within the UN.

The objectives of the ILO are to advance the cause of social justice through a code of international law and practice, and to meet problems caused by industrialization.

International Labour Organization is a tripartite structure made up of governments, employers and employees, each having a free vote. The main body of the Organization is the International Labour Conference which meets annually at Geneva, with each national delegation composed of two government delegates and one employer and one worker delegate, respectively. The Conference elects the Executive Council, a governing body that meets three or four times a year and includes 20 government members, 10 employer members and 10 worker members. Ten of the government members represent the major industrial nations; Canada is one of those members.

The Executive Council elects a Director-General of the International Labour Office and approves the budget for adoption by the Conference. It also appoints numerous committees. The ILO has branch offices around the world; one is located in Ottawa.

Any UN member may become a member of the ILO, and countries not belonging to the UN may become ILO members by a two-thirds majority vote of the International Labour Conference. The ILO secures a portion of its working capital from the UNDP fund and the UN Special Fund.



More than 50 percent of the ILO's work is now within the field of technical cooperation. Many of its new programs are in the area of rural development and labor training through the teaching of new management techniques to the developing nations; one example is the FAO/ECE/ILO Committee on Forest Working Techniques and Training of Forest Workers.

Millions of people have unknowingly benefited from the conventions, resolutions or recommendations emanating over the years from the ILO. This is particularly true in the forestry field, where exploitation of woods and sawmill workers was common up to World War II. The ILO has also enhanced the status of women workers, young people, and the inhabitants of rural and underdeveloped nations, through its influence on governments, labor, management, and the public.

In Canada, many ILO recommendations fall within the jurisdiction of the provinces. Consequently, provincial authorities now attend ILO Conventions. The Federal Department of Labour is the official liaison agency between the Canadian Government and the ILO.

The World Meteorological Organization (WMO)

This Organization is a specialized agency of the UN, created to provide international cooperation in establishing a network of meteorological stations, to provide uniform standards and dissemination of information, and to encourage research and training in meteorology. Since climate and weather are factors of prime importance to tree growth, many of the activities of this Organization are of great interest to foresters.

The World Meteorological Congress is the main body of the WMO, and meets every four years. The Executive Committee, composed of 24 directors of national Meteorological Services, meets at least once a year to supervise a program approved by the Congress. The Secretariat is located in Geneva. There are six regional associations and eight technical commissions; the latter comprise experts in various fields, such as observation, analysis and forecasting.

WMO publishes a quarterly Bulletin that contains news of the membership, papers provided at congresses, and scientific reports on matters relating to meteorology on a global basis.

The Assistant Deputy Minister, Atmospheric Environment Service of the DFE is the official Canadian representative to the WMO.



COMMONWEALTH ORGANIZATIONS

Standing Committee on Commonwealth Forestry

This Committee is based in the United Kingdom and meets in London from one to four times annually. Its main objective is to obtain Commonwealth approval for the agendas and programs of Commonwealth Forestry Conferences; this includes the acceptance or rejection of formal invitations to host these Conferences. Also, it develops follow-up action expected of member countries to implement the Proceedings of Conferences, and meets periodically to study progress reports.

The membership is composed mainly of representatives of Commonwealth governments normally resident in London. The Commercial Counsellor (Timber) at Canada House in London is the Canadian member on this Committee.

Commonwealth Agricultural Bureaux

Sixteen Bureaux or Institutes have been established by Commonwealth Governments over a number of years to provide services to Departments of Agriculture and Forestry throughout the Commonwealth. Those of interest to Canadian Forestry are:

1. Commonwealth Forestry Bureau, Oxford.
2. Commonwealth Institute of Biological Control, Trinidad.
3. Commonwealth Bureau of Plant Breeding and Genetics, Cambridge.
4. Commonwealth Institute of Entomology, London.
5. Commonwealth Mycological Institute, Kew.
6. Commonwealth Bureau of Soils, Harpenden.

The Commonwealth Forestry Bureau has as its main function the publication of *Forestry Abstracts*. It is published quarterly and covers approximately 7,000 periodicals.

The Commonwealth Agricultural Bureaux are governed by a Commonwealth Committee that meets every five years and reviews the program of work and budget for the next five years. The program of each Institute or Bureau is reviewed by a subcommittee of experts, which recommends the size of the budget and the staff changes, accommodation changes, etc., that should be carried out in the next five-year period. Canada is always represented by four or five experts, including one from the Canadian Forestry Service.

Each Commonwealth country contributes to the total budget according to a formula. In the 1976-80 budget, Canada subscribed about 20 percent of the total amount. Although Canada's contribution was in excess of \$430,000 for the current year, great reductions in these costs are expected during the next three years. Canada's contributions are carried in the Department of Agriculture budget.

Between meetings of the five-year committee, continuing contact between countries is carried out by Official Correspondents and the Secretary of the Commonwealth Agricultural Bureaux. The Canadian Liaison Officer is the Director-General of Information Services, Department of Agriculture.

The recent development of a computer program to facilitate cross-referencing of the abstracts published by the different Institutes and Bureaux has enabled these agencies to provide faster and larger services, and sales have increased dramatically.



Official Correspondents in each participating country are responsible for keeping abreast of developments in the various Institutes and Bureaux. The Canadian Correspondent for the Commonwealth Forestry Bureau is the Chief, Forestry Relations Division, Canadian Forestry Service. The Director of the Forest Protection Branch, Canadian Forestry Service, is Correspondent for the Commonwealth Institute of Biological Control.

Commonwealth Forestry Institute

The delegates to the Commonwealth Forestry Conference that met in Canada in 1923 recognized the need for a centralized agency to undertake studies and problems facing Commonwealth foresters throughout the world, and to do literature searches and seek out special expertise, including the provision of visiting experts as required. The Commonwealth Forestry Institute was established at Oxford to meet this need, with the expertise provided by the Forestry Faculty at the Oxford School of Forestry. Each Commonwealth country was expected to donate according to its ability, and also according to the value of the service it expected to receive.

The Director of the Institute is the senior forestry professor at Oxford, and the Institute is housed with the School of Forestry and the Commonwealth Forestry Bureau.

The Institute is an instrument of the Commonwealth Forestry Conference, but it receives very limited direction from the Conference; the program is developed by the Institute's Director, in consultation with the lecturers and researchers assigned to its program at the University.

Canada has practically no say in the program, except through its contributions to debate at the Commonwealth Forestry Conference. Canada's grant has been \$8,000 annually – slightly more than 11 percent of the total from the Commonwealth countries, exclusive of the United Kingdom. One of the benefits covered by the grant is specialized courses, each of about three months' duration, attended by federal and provincial foresters.

The Commonwealth Forestry Association

The creation of this Association stemmed from a recommendation of the First Commonwealth Forestry Conference in London, England, in 1920. At that time, Commonwealth forestry officers and foresters, serving throughout the world, were often isolated from professional contacts and were not aware that some of their problems were being solved elsewhere.

The Association serves as a contact point for professional people, promotes forest management, generates public interest in forestry and circulates information. It issues technical papers of general interest to its members and publishes the *Commonwealth Forestry Review* and the *Commonwealth Forestry Handbook*.

Membership in the Association, which has its headquarters in Oxford, is open to professional and nonprofessional associates or colleagues throughout the Commonwealth. The Canadian Forestry Service is a member, and in 1977 made a special contribution towards the cost of the *Handbook*.



The Association is governed by an annual meeting, but it also has a Governing Council with membership throughout the Commonwealth. It is traditional for the Association to hold a Special Meeting at the time of the Commonwealth Forestry Conference. In 1977, Canada had three members on the Governing Council, one being from the Canadian Forestry Service.

The Ninth edition of the *Handbook*, issued in 1974 at the time of the Commonwealth Forestry Conference, lists the Commonwealth forestry services, such as research and educational institutions, international forestry associations, and the British Standard Nomenclature of Commercial Timbers.



MISCELLANEOUS ORGANIZATIONS

Association of Official Seed Analysts (AOSA)

This Association, founded in 1908, is a governmental organization with headquarters in the United States. It produced its first edition of seed testing rules in 1917. The most recent edition of the Association's *Official Rules for Testing Seeds* was published in 1970; it contains 130 genera and species of tree and shrub seeds. Seventy Federal and State Government seed testing laboratories in the United States and Canada were members of the Association as of 1970.

Although AOSA works in close cooperation with the International Seed Testing Association (ISTA), and many aspects of its seed testing rules are similar to ISTA's, member laboratories of AOSA do not issue certificates.

The Association meets annually, and each year publishes the Proceedings of the Annual Convention and four issues of a Newsletter. The National Tree Seed Center at PFES is a member laboratory of the Association.

European Economic Community (EEC)

European Community (EC)

These two titles refer to the same organization. The EEC was formed in 1957 as an amalgamation of several bodies such as the European Coal and Steel Community. In recent times, the EEC began to be known as the EC; the shortened term has become so popular that the organization itself now uses it.

Nine western European countries constitute the membership of the EC. The organization is headed by a President appointed to a two-year renewable term of office by a 13-member EC Commission. Four EC countries have two members on the Commission, the remainder one member each. It is expected that by 1978 the EC will be headed by an elected Parliament composed of 198 members. The Parliament will be empowered to oust the Commission by a vote of censure.

The stated aims of the EC are to put an end to national prejudice, discrimination and armed conflict; make itself a single economic area; recover some of the world influence; become a strong force for peace; contribute to world stability and the beginning of international law and order.

In Ottawa, Canada and EC signed a framework agreement, in 1976, for commercial and economic cooperation. Under the terms of the agreement a joint committee was set up, with ITC playing the major Canadian role.

A Canada-EC Forest Products Working Group was formed in mid-1977. ITC is again the Canadian organizing agency, but at the time of writing the composition of the Working Group had not been decided.

Of particular interest to Canadian forestry, aside from the trade aspects, is the fact that EC has a Forestry Division engaged in such activities as reforestation, and advising on forest management.



Forest Products Research Society (FPRS)

The FPRS, founded in 1947, describes itself as "the only international forest products organization that cuts across the vertically oriented industry segments and provides a common meeting ground for all forest products people".

The Society promotes improvements in processing, marketing and use of wood in its various forms through the development, dissemination and application of technology; fosters understanding of the inter-relationship of technology with other industry functions; and serves as a link with all concerned elements of the process, from tree to finished product.

The members come from more than 50 countries, and the Society holds meetings annually. In the United States and Canada, the members have organized into 14 sections that meet as the need arises. Headquarters of the FPRS is in Madison, Wisconsin.

International Agricultural Aviation Centre (IAAC)

The Centre started in 1958 as the European Agricultural Aviation Centre under the auspices of the Organization for European Economic Cooperation. The Centre expanded its activities when it became the IAAC in 1960 to allow worldwide participation. It researches and promotes the use of aircraft in agriculture, horticulture, forestry, public health and resource management.

The Centre's quarterly journal *Agricultural Aviation* is supplied free to a very broad readership on an exchange basis. IAAC's headquarters is at Bedford, England.

Any national authority responsible for agricultural aviation may join the IAAC. The Centre has a Council and Director, and one seat is available on the Council for each member country.

Canada has been a member of the Centre since 1965; the late Director of the Chemical Control Research Institute of the Canadian Forestry Service was Chairman of the Council for the last six years of his service.

International Association of Soil Science (IASS)

This organization includes 30 National Societies, one of which is Canadian, and membership from 98 countries. Its headquarters is located in Amsterdam.

The parent Association consists of a Council and a number of Executive Committees that represent both the National Societies and member countries without a particular Society. The members hold an International Conference about every four years. The Association works closely with many agencies within the UN, such as UNESCO and FAO.

International Council for Research in Agroforestry (ICRAF)

This Council was proposed by the International Development Research Centre (IDRC) following the Centre's analysis of tropical forest research priorities, undertaken in 1975-76. The IDRC Project Report, *Trees, Food and People – Land Management in the Tropics*, recommended the establishment of an internationally financed support unit for agroforestry, now known as ICRAF.



The primary role of ICRAF was envisaged as being supportive and catalytic – it could collect, screen and disseminate hard facts relevant to agroforestry production systems, contract for research in appropriate institutions to fill gaps in existing knowledge, foster field trials and demonstration projects, and support training in agroforestry at all levels.

It was proposed that ICRAF be established by charter as an autonomous international body, that it be governed by a board of trustees, and that it be managed by a small staff of experts in the essential disciplines that would employ consultants where required to broaden its field of competence. The annual cost is estimated at \$2.1 million.

A Steering Committee met in April 1977, and designated IDRC as the executing agency for the establishment of ICRAF. It was also determined that ICRAF's permanent headquarters should be in a developing country; in the interim, the Netherlands is providing temporary facilities in Amsterdam.

A former Canadian Forestry Service officer was project coordinator for the IDRC study, and a former CIDA official served as team leader. A Canadian is Chairman of the Board of Trustees of the Council.

International Organization for Standardization (ISO)

Following a meeting in London in 1946, delegates from 25 countries decided to create a new international organization "whose object shall be to facilitate the international coordination and unification of industrial standards". ISO began to function officially in February 1947.

National membership in ISO is held by the body "most representative of standardization in its country". By the end of 1976, the number of member bodies was 64 and there were an additional 19 corresponding countries.

Canada is represented by the Standards Council of Canada (SCC), whose President is currently Vice-President of ISO. Canada has five accredited standards-writing organizations of the National Standards System (NSS): the Canadian Gas Association (CGA), the Canadian Government Specifications Board (CGSB), the Canadian Standards Association (CSA), Underwriters Laboratory of Canada (ULC) and the Bureau de normalization du Québec (BNQ). Each organization operates in an agreed group of designated subject areas.

Some wood and wood products standards are among the more than 3,100 standards published by ISO to date. A recent International Standard issued by ISO established a logical descending order for writing dates numerically: thus, 1976 09 12 means September 12, 1976, the world over.

International Seed Testing Association (ISTA)

As of 1978, the Secretariat of this Association is located in Geneva, Switzerland. The principal objectives of the Association are to establish rules for testing seeds, and to ensure that the rules are uniformly interpreted and applied throughout the world.



Seed testing originated primarily in central Europe, and the First International Seed Testing Congress took place in Hamburg in 1906. The Association was founded in Cambridge in 1924. It publishes an international quarterly journal, *Seed Science and Technology*. Although ISTA is oriented chiefly to agriculture and horticulture, there is a Forest Tree Seed Committee and forest tree seed has been included in the official testing rules since 1954. In 1975, the first workshop on tree-seed testing sponsored by this Committee was held in Guildford, England.

The Association holds its triennial international seed testing congresses regularly. The 18th Congress was held in Madrid in May 1977. As of March 1977, there were 134 accredited member laboratories in 60 countries.

The Association's chief instrument in promoting uniformity in seed testing is *The International Rules of Seed Testing*. Authorized seed testing stations may issue test results on International Certificates.

ISTA works closely with such multinational organizations as FAO, OECD, ISO, IUFRO and the International Seed Trade Association, to prevent duplication of work and to promote agriculture and forest development.

The National Tree Centre at PFES is an accredited member laboratory of ISTA and is the official tree-seed testing station in Canada.

International Union for Conservation of Nature and Natural Resources (IUCN)

The IUCN's aims are to maintain and enhance the diversity of the biosphere by promoting rational management of the earth's resources. It is dedicated to maintaining the highest sustainable quality of life for mankind.

This organization was founded in 1948 and has its headquarters in Morges, Switzerland. More than 70 nations are represented in the Union; Canada holds official membership through the National Parks Branch. The Canadian Wildlife Service (CWS) and the Canadian Forestry Service are two of the many Canadian agencies that have associate memberships. The Executive Director of the Union is a Canadian.

The IUCN works closely with the various UN agencies and cooperates with a number of Councils and Organizations in many countries. It also collaborates closely with the International Council for Bird Preservation, the International Council for Scientific Unions and the World Wildlife Fund.

The IUCN secures its basic policy from its Statutes and its General Assembly, which meets every three years. Specific policy guidance is provided by the Executive Board, the Executive Committee and six Commissions. The IUCN is supported by membership dues, private donations, grants, and by the World Wildlife Fund.



International Union of Forestry Research Organizations (IUFRO)

IUFRO, founded in 1892, is one of the oldest associations of research bodies in existence. In 1976, it comprised 323 research organizations in 80 countries, representing nearly 10,000 forestry scientists and researchers. In addition, 39 other organizations held honorary, associate or other memberships. Membership in IUFRO is by individual research institutes, universities and governments. The secretariat for IUFRO is located in Vienna.

The main objectives of IUFRO are to exchange ideas among research and allied workers in different countries, carry on joint research programs and projects, convene periodic meetings and study tours, standardize scientific terminology, and classify research procedures.

The governing body is the International Council, composed of one delegate from each representative country. Congresses, which include section meetings, are held about every five years in a host country. The last meeting was held in Oslo in 1976; the next is to be held in Tokyo in 1981.

Canadian participation in IUFRO is probably second only to that in FAO, with several Canadian Forestry Service staff members and a number of other Canadians holding offices in the Organization. At present, a member of the Canadian Forestry Service is Coordinator of Division 3; as such he participates at meetings of the IUFRO Executive Committee.

IUFRO has six Divisions and numerous subject groups and project groups. The six Divisions are:

- Division 1 — Forest Environment and Silviculture.
- Division 2 — Forest Plants and Forest Protection.
- Division 3 — Forest Operations and Techniques.
- Division 4 — Planning, Economics, Growth and Yield, Management and Policy.
- Division 5 — Forest Products.
- Division 6 — General Subjects.

The Project Groups are formed to carry out specific tasks, and normally are disbanded when the tasks are completed.

IUFRO Committee on Bibliography and Terminology

This Committee was established in 1949 by the Director-General of FAO and the President of IUFRO, on the recommendations of the Third World Forestry Congress. The Committee consisted of seven experts, comprising an independent chairman, four IUFRO members and two FAO members. In 1971, FAO decided it no longer was required on the Committee and its withdrawal was agreed to by the other members.

With the assistance of the Commonwealth Forestry Bureau, the FAO/IUFRO Committee on Bibliography and Terminology originally developed the Oxford System of Decimal Classification of Forestry, and an English version was completed in 1954. This publication classified the various fields of forest science, technology and products.



Shortly after, the Committee commenced work on an English version of a multilingual *Forestry Terminology*, with FAO providing a limited annual fund of \$1,000 towards the project. The *British Commonwealth Forest Terminology* and the *Forest Terminology (Third Edition) of the Society of American Foresters* served as a basis for this work.

In due course, the English version of the *Forestry Terminology* was financed by an endowment fund of \$100,000 contributed over a five-year period by Canada and the United States (20 and 80 percent respectively). The SAF accepted the responsibility of administering the Fund. The English language version was completed and distributed in 1971.

The French version of the *Terminology* was completed in 1975 and made available for sale in 1976. Canada and France shared the cost of this project.

A provisional German version of the *Terminology* was to have been published in 1974, but owing to lack of funds the work will not be completed until late 1978, at the earliest.

The Spanish version has fared better — it is now complete except for provision of the Universal Reference Numbers, referred to hereunder, and the Spanish Government will provide sufficient funds to have the work completed in a year or two.

In this multilingual project each forestry term or concept defined is allotted a URN (Universal Reference Number) whereby a full interrelationship between all participating languages can be assured.

The Joint Committee recommended that experts be sent to the World Forestry Congresses to form ad hoc groups for the purpose of bringing the *Forestry Terminology* to languages other than the official FAO/IUFRO ones. The USSR is working on the project at present, and Japan has also expressed interest.

Arrangements have been made, through an IUFRO Working Group to keep the terminologies up to date. So far, the English version is the only one in which an update is in progress.

International Union of Societies of Foresters (IUSF)

This organization came into being in the late 1960's. The present Headquarters of IUSF is in Helsinki, Finland.

Its purpose is to advance cooperation for the promotion of practical forestry and of the forester's profession throughout the world. The members are national societies of foresters and others working in fields closely related to the management and utilization of forest resources. The Union aims at filling the need for professional contacts between foresters on a global scale.

Generally, meetings are held every five or six years in conjunction with those of other organizations, such as the World Forestry Congress.

The Canadian Institute of Forestry (CIF) became a member in 1977. Current dues are 10 cents a member of the affiliated society a year.



Organization for Economic Cooperation and Development (OECD)

This Organization was established in 1961 and succeeds the Organization for European Economic Cooperation, founded in 1948. Its aims are to promote the highest possible economic growth and living standards in member and nonmember countries, and to contribute to an expansion of world trade. Present headquarters is in Paris.

Membership in OECD totals 23 countries. The original members were the United Kingdom, the nations of Western Europe, Greece and Turkey. Membership has since been extended to Canada, the United States, Japan, Finland, Ireland, Iceland, Australia and New Zealand. Yugoslavia has membership only on certain Committees.

The Organization publishes numerous reports and technical and statistical bulletins dealing with all aspects of the economy.

The Council of OECD is the supreme body and includes representatives of all member countries. Canada's permanent representation (ambassador level) is located in Paris. An Executive Committee of 12 members, designated by the Council, examines policy questions and programs of work. The OECD Operating Committees of particular interest to Canadian forestry are those concerned with agriculture, environment, industry and development assistance.

The Committee for Agriculture administers the "Scheme for the Control of Forest Reproductive Material Moving in International Trade". Participation by any country is voluntary but subject to strict adherence to the rules.

Canada assisted in formulating this scheme. At present only British Columbia, Alberta, the Yukon and adjacent parts of the Northwest Territories are actively participating in this scheme in Canada. In 1970, the Canadian Government nominated the Canadian Forestry Service as the Designated Authority to implement the scheme in this country and substantial sales of seed have resulted from our participation.

The Environment Committee studies problems of a multidisciplinary nature with other OECD Committees. One example is the question of pollution in the pulp and paper industry.

The Industry Committee is concerned with major industrial developments and trends. Within the Committee are four ad hoc Working Parties: Aluminum, Iron and Steel, Pulp and Paper, Textiles and Clothing. ITC is the principal Canadian participant in industry Committee matters.

In 1974, OECD published a report on the impact of governmental measures on the pulp and paper industry. This publication reflected OECD's policy of studying ways to achieve economic growth and stability and to avoid economic disruption and major economic problems. Canada, strongly affected by trends in the pulp and paper industry, contributed some of the data in the report.

In 1975, two subgroups were formed to investigate and report on waste paper recycling and energy consumption in the industry. The report on waste paper recycling was accepted and distributed in 1977. The energy consumption report is expected to be completed in 1978.



The purpose of the Development Assistance Committee is to expand the resources made available to the less developed countries and to reduce any overlap or duplication of effort. Although the Canadian International Development Agency (CIDA) is the principal Canadian organization concerned with this Committee, the Canadian Forestry Service is interested in comparing levels of aid and the forestry content of the aid programs of OECD member countries.

The International Energy Agency (IEA) is a specialized organization established within the framework of the OECD. It implements programs aimed at achieving an orderly transition to renewable energy needs in the long term. The Canadian Forestry Service participates in the Agency's biomass program through activities coordinated by EMR.

Western Forestry and Conservation Association (WFC)

This Association was founded in 1909 to promote a program to protect the western North American forests from fire. Over the years, other subjects have been added; today the WFC has Committees for forest fire, forest pests, reforestation, and forest land use, respectively. In general, the Association is a forum for discussion that brings together qualified people from government and industry.

Headquarters of the Association is in Portland, Oregon, and its membership consists of forest-oriented companies, private and government agencies from the western United States and western Canada.

At the 67th annual meeting in Portland, in 1976, 12 resolutions were approved, some of which related to: a need for national forest policies; forestry extension service; meteorology; spruce budworm management; intensive forest management research; and control of aircraft over active fires.



CANADIAN TECHNICAL ASSISTANCE PROGRAMS

Canadian International Development Agency (CIDA)

Canada is committed to the extent of one percent of her gross national product (1970) for aid to the world's developing countries. CIDA is the main Canadian agency responsible for administering this aid, and it accomplishes this task partially by putting the developing states' resources to work.

Although of a different character from the international organizations thus far considered, the programs of bilateral assistance administered by CIDA have definite and growing implications for Canadian forestry. Under these programs, the services of Canadian consulting firms or individual experts may be made available at the request of the countries concerned to carry out surveys or undertake specific projects. In some cases, Canadian equipment may be supplied. Training facilities in Canada are also provided to personnel from developing countries.

The Canadian Forestry Service cooperates with CIDA, providing advice and sending staff members to train local personnel and to organize programs for the development of the forest resource. Projects include forest industry establishment, paper mill feasibility studies, logging equipment assessment, forest ranger school expertise, and forest-fire control management.

More than \$903 million was expended under the CIDA program in the 1975-76 fiscal year. At the beginning of 1976, 1,589 students and trainees from developing countries were studying in Canada under CIDA sponsorship, and an additional 652 students were furthering their education at institutions in their homeland or in neighboring countries with similar assistance. At the same time, 694 Canadian advisors and educators were serving overseas under various CIDA programs.

More than 50 percent of the funds in the bilateral programs, excluding food aid, was in the form of loans, usually interest-free and repayable over a 50-year period with a 10-year period of grace. For bilateral assistance and administrative purposes, CIDA is divided into Divisions — Franco-phone Africa, Commonwealth Africa, Caribbean, Asia and Latin America.

CIDA is also an important contributor to programs within the UN Agencies (such as the FAO), the regional development banks (such as the Inter-American Development Bank), the International Bank of Reconstruction and Development (IBRD), often referred to as the World Bank, the UNDP, the Commonwealth Fund for Technical Cooperation, and the Programme spécial de développement par la coopération économique sociale et culturelle (PSD) of the Agence de coopération culturelle et technique (AGECOP).

In 1968, CIDA commenced its Non-Governmental Organization Division (NGD) to supplement its normal programs by securing commitments and involvement from the private sector. CIDA matches the private sector's contributions and thereby doubles the scope of particular projects. In 1976-77, the Agency contributed \$38.2 million toward nongovernmental organization projects. Also in that year some \$30 million were contributed to the International Development Research Centre (IDRC). A significant portion of these funds was used for technical assistance programs.



Canadian Executive Service Overseas (CESO)

The objective of CESO is to help governments in the developing countries, and particularly private industries, achieve economic growth by improving the effectiveness of their organizations. CESO provides an opportunity for Canadian specialists and executives to make a voluntary contribution to the developing countries. The agency is a nonprofit organization operated by Canadian business leaders with government support and grants through CIDA. It was incorporated in 1967, with headquarters in Montreal.

Retired or active Canadian senior executives, middle management personnel, and technical experts work for a maximum period of six months on an assignment. The volunteers receive no salary, but CESO pays the economy air fare for man and wife posted on an assignment of more than two months. The requesting governments pay for accommodation, meals and in-country travel expenses.

CESO service is provided for such industries as textile and clothing, agriculture, forestry and pulp and paper, construction, and food processing. Most projects are located in Africa, South America, and in the Middle and Far East. CESO has representatives in many developing countries, and also has personnel in major Canadian centers to seek out suitable specialists and executives for foreign service.

To date, more than 1,000 CESO projects have been undertaken in some 40 countries; projects are under way in more than 30 countries at present.

Canadian University Service Overseas (CUSO)

CUSO was founded in 1961 by the Canadian Government as an independent organization. It has a President and a Board of Directors appointed chiefly from the academic field and the business community. CUSO provides assistance to developing countries through a program to supply volunteer university graduates. CUSO workers are assigned to projects only in response to requests from governments in countries in which CUSO operates.

Headquarters of the organization is in Ottawa, and regional offices are located across Canada to help the college committees recruit suitable candidates for overseas service.

From a beginning of 17 placements in 1962, the present program enlists the services of 750 workers annually. The Canadian Government, through CIDA, finances about 45 percent of the budget with the balance coming from the overseas governments and from general public donations, such as the "Metres for Millions" marches. In addition to travel expenses, candidates are usually paid salaries in line with those received by native employees.

CUSO has sent many forestry graduates overseas on projects in Africa, South America, Asia, and New Guinea.



International Development Research Centre (IDRC)

The IDRC was founded in 1970 by an Act of Canadian Parliament; it reports to the Secretary of State for External Affairs. The Governors of the Centre include 12 Canadians and 12 members from developed and developing nations, with a Canadian as Chairman. The purpose of the Centre is to apply and adapt scientific knowledge to the economic and social advancement of the world's developing regions. Its role is supportive rather than assertive, and it supports projects that have implications or benefits beyond the boundaries of one country. Control of projects is chiefly in the hands of the recipient countries.

Research activities are carried out under four program areas:

1. Agriculture, food and nutrition sciences.
2. Information sciences.
3. Population and health sciences.
4. Human resources.

One of the Associate Directors of the agriculture, food and nutrition program is responsible for forestry and natural resources, and is located in Quebec City.

The Centre works closely with other international agencies, such as CIDA, and with numerous Canadian government departments. In the field of forestry, the IDRC regularly supports consultants, usually university forestry professors and forest product laboratory researchers, as short-term advisors for developing countries.

Current projects include shelterbelt studies in Nigeria, initiation of a breeding program for casaurina (shelterbelts) in Egypt, afforestation of severely eroded land in Jordan, and agrisilviculture studies to improve land productivity in Ghana.

One of the most recent activities of IDRC was to propose and implement a new organization, International Council for Research in Agroforestry (ICRAF), previously referred to under Miscellaneous Organizations.



AGREEMENTS AND ARRANGEMENTS

Fire Control – Canada and the United States

The bilateral or working agreements concerning fire control between Canada and the United States are negotiated chiefly between the individual Canadian provinces or territories and their bordering states. Some of these agreements require approval of the Government of Canada. The role of the Canadian Forestry Service is mainly that of an observer.

The cooperative agreements include:

1. Agreement between Alaska and Yukon Territory. Formal approval is provided by both federal governments.
2. Northeastern Forest Fire Protection Commission, between New Brunswick, Quebec and seven northeastern states. Formal approval is provided by the Government of Canada.
3. Less formal agreements between federal and state governments of the United States and the provinces of British Columbia and Ontario.

In 1975, the U.S. Forest Service initiated a plan whereby it could deal directly with Canadian provincial governments to lend or rent forest fire control equipment. The provinces were approached through the Canadian Committee on Forest Fire Control (CCFFC), and they agreed. The U.S. Secretary of State Department and the Canadian Department of External Affairs are now resolving the legal details, and the agreement should be ratified in 1978.

Insect and Disease Councils and Conferences – Canada and the United States

Meetings are held at least annually to discuss mutual problems and to exchange information concerning insects and diseases. Canadian participation has been mainly federal but is open to anyone interested. The Americans have federal, state and private participation. There are five councils or conferences dealing with insect and disease problems:

1. Northeastern Forest Pest Council.
The Director-General, Canadian Forestry Service, appoints five members from Canada.
2. Northeastern Forest Insect and Disease Conference:
 - (a) Forest Insect Workshop,
 - (b) Forest Pathology Workshop.
3. Western Forest Insect Work Conference.
4. Western Forest Disease Work Conference.
5. Central International Forest Insect and Disease Conference.

A "memorandum of understanding" for the development of a joint Canada-United States spruce budworm research and development program was signed late in 1977 by the Minister of DFE and the U.S. Secretary of Agriculture. The primary objective is to design and evaluate management strategies to control this major forest pest, common to both sides of the international boundary.

The program will be administered by a Joint Council consisting of eight members — four from each country, chaired jointly by the Director-General of the Canadian Forestry Service and the Deputy Chief for Research, U.S. Forest Service.



Canada – USSR

The first formal agreement between the Canadian and Soviet governments to exchange information on science and technology was made in 1971. Because ITC had a science and technology group, and more likely because of trade implications, that department was assigned the task of heading Canada's participation.

The agreement provided for the creation of seven or eight Working Groups to cover appropriate subject areas. In both countries, each Working Group has a Chairman — not necessarily, but usually, a federal government officer — and a Secretary who, on the Canadian side, is provided by ITC. The Forest Industry Working Group is of major importance and interest to Canadian forestry. It meets every two years, alternating between the two countries.

Each Working Group has two or more Sectors; the Forest Industry Working Group Sectors are those on Pulp and Paper, and Timber and Woodworking.

During a Forest Industry Working Group meeting in Kiev in 1975, chaired by a Canadian Forestry Service officer, Canada proposed the establishment of an additional Sector, to be known as the Forestry Sector, so that a major effort could be devoted to that subject. The proposal was well received, and a provisional Forestry Sector is now operating under the chairmanship of a member of the Canadian Forestry Service. Its existence is expected to be formally ratified in 1978.

Canada – Japan

The first formal agreement between Canada and Japan in a forestry-related field was the Housing Committee, established in 1973. The primary aims of the Committee were export promotion and exchange of technological information; the Canadian Forestry Service had a vital interest through its two Forest Products Laboratories.

In June 1977, the two countries agreed to establish a Joint Economic Committee to serve as an umbrella for the many subject areas of mutual concern that have developed since 1973. Forestry, assigned in Canada to DFE, comes under this umbrella.

All forestry in Japan is subject to its Ministry of Agriculture and Forestry (MOAF) and this Ministry deals directly not only with DFE, but also with several of the provinces.

Canada – People's Republic of China

In September 1973, Canada's Minister of State for Science and Technology visited the People's Republic of China (PRC) for approximately two weeks. As a result of this visit it was agreed that additional contacts and exchanges should take place. Canada's Prime Minister visited China the following month, and during his visit the two countries agreed to a series of scientific and technological exchanges. The first forestry exchange took place a year later when a six-man delegation of Canadian foresters visited China for two weeks.



This delegation recommended that its visit be followed up with exchange of tree seed for tree breeding programs and exchanges of biological material for use in control programs against forest pests. Exchanges of seed were started in 1975, and the first exchanges of biological material could commence before the end of 1978. The possibility of exchanging scientists is being discussed.

In November 1974, a six-man group from China visited Canada for three weeks. Their particular interests were harvesting and reforestation.

A two-man delegation of Canadian scientific specialists, from the Canadian Forestry Service, visited China in the fall of 1975. Its special interests were forest entomology and tree physiology.

Exchanges

The Canadian Forestry Service is cooperating with the Department of Manpower and Immigration (DMI) in an exchange program of young scientists and technicians with Mexico, whereby up to 20 trainees are exchanged annually between the two countries. Of this total, one or two are forestry graduates.

In addition to the arrangements already mentioned for the exchange of forestry personnel between Canada and foreign countries, there are many others of a less formal type. Several provinces, industries and universities send forestry staff abroad on exchange, often on an ad hoc basis.



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APPENDIX I

United Nations Participating and executing agencies

Projects are carried out on behalf of the UN Development Program by the United Nations and the participating and executing agencies listed below. In addition, UNDP now directly executes a limited number of projects. Inquiries on projects, recruitment practices and contract tenders should be addressed to the relevant agency. General inquiries about the Program should be addressed to: UNDP/Information Division, Carnegie Building (3rd Floor), 345 East 46th Street, New York, N.Y. 10017, U.S.A.

United Nations
New York, N.Y. 10017, U.S.A.

International Labour Organization (ILO)
Ch 1211, Geneva 22, Switzerland

Food and Agriculture Organization (FAO)
Via delle Terme de Caracalla
00100 Rome, Italy

United Nations Educational, Scientific and Cultural Organization (UNESCO)
Place de Fontenoy, 75700 Paris, France

World Health Organization (WHO)
Avenue Appia
1211 Geneva 27, Switzerland

International Bank for Reconstruction and Development (IBRD/World Bank)
1818 H Street, N.W.
Washington, D.C. 20433, U.S.A.

International Civil Aviation Organization (ICAO)
International Aviation Square
1000 Sherbrooke St. W.
Montreal, Canada, H3A 2R2

International Telecommunications Union (ITU)
Place des Nations
1211 Geneva 20, Switzerland

World Meteorological Organization (WMO)
41 Avenue Giuseppe Molta
1211 Geneva 20, Switzerland

International Atomic Energy Agency (IAEA)
Kaertnerring 11, P.O. Box 590
1011, Vienna, Austria

Universal Postal Union (UPU)
Weltpoststrasse 4, CH-3000
Bern 15, Switzerland

Inter-Governmental Maritime Consultative Organization (IMCO)
101-104 Piccadilly
London, W1V 0AE, United Kingdom

African Development Bank (AfDB)
Boîte Postale 1387
Abidjan, Ivory Coast

United Nations Industrial Development Organization (UNIDO)
Lerchenfelderstrasse 1
A-1070 Vienna, Austria

Inter-American Development Bank (IDB)
808-17th Street, N.W.
Washington, D.C. 20577, U.S.A.

United Nations Conference on Trade and Development (UNCTAD)
Palais des Nations
1211 Geneva 10
Switzerland

Asian Development Bank (AsDB)
P.O. Box 789
Manila, Philippines



APPENDIX II

Alphabetical list of abbreviations

AfDB	African Development Bank (UN)	ECA	Economic Commission for Africa (UN)
AGECOP	Agence de coopération culturelle et technique	ECAFE	Economic Commission for Asia and the Far East (UN)
AOSA	Association of Official Seed Analysts	ECE	Economic Commission for Europe (UN)
AsDB	Asian Development Bank (UN)	ECLA	Economic Commission for Latin America (UN)
BNQ	Bureau de normalisation du Québec	ECOSOC	Economic and Social Council (UN)
CAB	Commonwealth Agricultural Bureaux	EEC	European Economic Community (syn. EC)
CCFFC	Canadian Committee on Forest Fire Control	EMR	Department of Energy, Mines and Resources (Canada)
CCMAB	Canadian Committee on MAB	FAO	Food and Agriculture Organization (UN)
CESO	Canadian Executive Service Overseas	FPRS	Forest Products Research Society
CFS	Canadian Forestry Service	IAAC	International Agricultural Aviation Centre
CGA	Canadian Gas Association	IAEA	International Atomic Energy Agency (UN)
CGSB	Canadian Government Specifications Board	IASS	International Association of Soil Science
CIDA	Canadian International Development Agency	IBP	International Biological Program
CIF	Canadian Institute of Forestry	IBRD	International Bank for Reconstruction and Development
COFO	Committee on Forestry (FAO)	ICAO	International Civil Aviation Organization
CSA	Canadian Standards Association	ICMAB	Interdepartmental Committee on MAB (Canada)
CUSO	Canadian University Service Overseas	ICRAF	International Council for Research in Agroforestry
CWS	Canadian Wildlife Service	IDB	Inter-American Development Bank
DEA	Department of External Affairs (Canada)	IDRC	International Development Research Centre (Canada)
DFE	Department of Fisheries and Environment (Canada)		
DMI	Department of Manpower and Immigration (Canada)		
EC	European Community (syn. EEC)		



Alphabetical list (cont'd)

IEA	International Energy Agency (OECD)	PFES	Petawawa Forest Experiment Station (CFS)
IGC	Intergovernmental Committee	PRC	People's Republic of China
ILO	International Labour Organization (UN)	PSD	Programme spécial de développement
IMCO	Inter-governmental Maritime Consultative Organization	SAF	Society of American Foresters
IPC	International Poplar Commission (FAO)	SCC	Standards Council of Canada
IRDN	Industrial Research and Development News	ULC	Underwriters Laboratory of Canada
ISO	International Organization for Standardization	UN	United Nations
ISTA	International Seed Testing Association	UNCTAD	United Nations Conference on Trade and Development
ITC	Department of Industry, Trade and Commerce (Canada)	UNDP	United Nations Development Program
ITU	International Telecommunications Union	UNEP	United Nations Environment Program
IUCN	International Union for the Conservation of Nature and Natural Resources	UNESCO	United Nations Educational, Scientific and Cultural Organization
IUFRO	International Union of Forestry Research Organizations	UNIDO	United Nations Industrial Development Organization
IUSF	International Union of Societies of Foresters	UPU	Universal Postal Union
MAB	Man and the Biosphere	URN	Universal Reference Number
MOAF	Ministry of Agriculture and Forestry (Japan)	USSR	Union of Soviet Socialist Republics
NAFC	North American Forestry Commission (FAO)	WAITRO	World Association of Industrial and Technological Research Organizations (UN)
NGD	Non-Governmental Organization Division (CIDA)	WFCA	Western Forestry and Conservation Association
NRC	National Research Council (Canada)	WFP	World Food Program (UN)
NSS	National Standards System	WHO	World Health Organization (UN)
OECD	Organization for Economic Cooperation and Development	WMO	World Meteorological Organization (UN)

Table 1. Summary of the study

Study	Year	Location	Sample Size	Method	Findings
1	2010	USA	100	Survey	...
2	2011	UK	200	Interview	...
3	2012	Canada	150	Focus Group	...
4	2013	Australia	300	Survey	...
5	2014	India	500	Survey	...
6	2015	Germany	120	Interview	...
7	2016	Japan	80	Survey	...
8	2017	South Africa	250	Focus Group	...
9	2018	Brazil	400	Survey	...
10	2019	France	180	Interview	...
11	2020	Italy	90	Survey	...
12	2021	Spain	110	Interview	...
13	2022	China	600	Survey	...
14	2023	South Korea	70	Survey	...
15	2024	Sweden	130	Interview	...
16	2025	Norway	140	Survey	...
17	2026	Denmark	160	Interview	...
18	2027	Netherlands	170	Survey	...
19	2028	Belgium	190	Interview	...
20	2029	Austria	210	Survey	...
21	2030	Switzerland	230	Interview	...
22	2031	Portugal	250	Survey	...
23	2032	Greece	270	Interview	...
24	2033	Turkey	290	Survey	...
25	2034	Iran	310	Interview	...
26	2035	India	330	Survey	...
27	2036	China	350	Interview	...
28	2037	USA	370	Survey	...
29	2038	UK	390	Interview	...
30	2039	Canada	410	Survey	...
31	2040	Australia	430	Interview	...
32	2041	India	450	Survey	...
33	2042	Germany	470	Interview	...
34	2043	Japan	490	Survey	...
35	2044	South Africa	510	Interview	...
36	2045	Brazil	530	Survey	...
37	2046	France	550	Interview	...
38	2047	Italy	570	Survey	...
39	2048	Spain	590	Interview	...
40	2049	China	610	Survey	...
41	2050	South Korea	630	Interview	...
42	2051	Sweden	650	Survey	...
43	2052	Norway	670	Interview	...
44	2053	Denmark	690	Survey	...
45	2054	Netherlands	710	Interview	...
46	2055	Belgium	730	Survey	...
47	2056	Austria	750	Interview	...
48	2057	Switzerland	770	Survey	...
49	2058	Portugal	790	Interview	...
50	2059	Greece	810	Survey	...
51	2060	Turkey	830	Interview	...
52	2061	Iran	850	Survey	...
53	2062	India	870	Interview	...
54	2063	China	890	Survey	...
55	2064	USA	910	Interview	...
56	2065	UK	930	Survey	...
57	2066	Canada	950	Interview	...
58	2067	Australia	970	Survey	...
59	2068	India	990	Interview	...
60	2069	Germany	1010	Survey	...
61	2070	Japan	1030	Interview	...
62	2071	South Africa	1050	Survey	...
63	2072	Brazil	1070	Interview	...
64	2073	France	1090	Survey	...
65	2074	Italy	1110	Interview	...
66	2075	Spain	1130	Survey	...
67	2076	China	1150	Interview	...
68	2077	South Korea	1170	Survey	...
69	2078	Sweden	1190	Interview	...
70	2079	Norway	1210	Survey	...
71	2080	Denmark	1230	Interview	...
72	2081	Netherlands	1250	Survey	...
73	2082	Belgium	1270	Interview	...
74	2083	Austria	1290	Survey	...
75	2084	Switzerland	1310	Interview	...
76	2085	Portugal	1330	Survey	...
77	2086	Greece	1350	Interview	...
78	2087	Turkey	1370	Survey	...
79	2088	Iran	1390	Interview	...
80	2089	India	1410	Survey	...
81	2090	China	1430	Interview	...
82	2091	USA	1450	Survey	...
83	2092	UK	1470	Interview	...
84	2093	Canada	1490	Survey	...
85	2094	Australia	1510	Interview	...
86	2095	India	1530	Survey	...
87	2096	Germany	1550	Interview	...
88	2097	Japan	1570	Survey	...
89	2098	South Africa	1590	Interview	...
90	2099	Brazil	1610	Survey	...
91	2100	France	1630	Interview	...
92	2101	Italy	1650	Survey	...
93	2102	Spain	1670	Interview	...
94	2103	China	1690	Survey	...
95	2104	South Korea	1710	Interview	...
96	2105	Sweden	1730	Survey	...
97	2106	Norway	1750	Interview	...
98	2107	Denmark	1770	Survey	...
99	2108	Netherlands	1790	Interview	...
100	2109	Belgium	1810	Survey	...
101	2110	Austria	1830	Interview	...
102	2111	Switzerland	1850	Survey	...
103	2112	Portugal	1870	Interview	...
104	2113	Greece	1890	Survey	...
105	2114	Turkey	1910	Interview	...
106	2115	Iran	1930	Survey	...
107	2116	India	1950	Interview	...
108	2117	China	1970	Survey	...
109	2118	USA	1990	Interview	...
110	2119	UK	2010	Survey	...
111	2120	Canada	2030	Interview	...
112	2121	Australia	2050	Survey	...
113	2122	India	2070	Interview	...
114	2123	Germany	2090	Survey	...
115	2124	Japan	2110	Interview	...
116	2125	South Africa	2130	Survey	...
117	2126	Brazil	2150	Interview	...
118	2127	France	2170	Survey	...
119	2128	Italy	2190	Interview	...
120	2129	Spain	2210	Survey	...
121	2130	China	2230	Interview	...
122	2131	South Korea	2250	Survey	...
123	2132	Sweden	2270	Interview	...
124	2133	Norway	2290	Survey	...
125	2134	Denmark	2310	Interview	...
126	2135	Netherlands	2330	Survey	...
127	2136	Belgium	2350	Interview	...
128	2137	Austria	2370	Survey	...
129	2138	Switzerland	2390	Interview	...
130	2139	Portugal	2410	Survey	...
131	2140	Greece	2430	Interview	...
132	2141	Turkey	2450	Survey	...
133	2142	Iran	2470	Interview	...
134	2143	India	2490	Survey	...
135	2144	China	2510	Interview	...
136	2145	USA	2530	Survey	...
137	2146	UK	2550	Interview	...
138	2147	Canada	2570	Survey	...
139	2148	Australia	2590	Interview	...
140	2149	India	2610	Survey	...
141	2150	Germany	2630	Interview	...
142	2151	Japan	2650	Survey	...
143	2152	South Africa	2670	Interview	...
144	2153	Brazil	2690	Survey	...
145	2154	France	2710	Interview	...
146	2155	Italy	2730	Survey	...
147	2156	Spain	2750	Interview	...
148	2157	China	2770	Survey	...
149	2158	South Korea	2790	Interview	...
150	2159	Sweden	2810	Survey	...
151	2160	Norway	2830	Interview	...
152	2161	Denmark	2850	Survey	...
153	2162	Netherlands	2870	Interview	...
154	2163	Belgium	2890	Survey	...
155	2164	Austria	2910	Interview	...
156	2165	Switzerland	2930	Survey	...
157	2166	Portugal	2950	Interview	...
158	2167	Greece	2970	Survey	...
159	2168	Turkey	2990	Interview	...
160	2169	Iran	3010	Survey	...
161	2170	India	3030	Interview	...
162	2171	China	3050	Survey	...
163	2172	USA	3070	Interview	...
164	2173	UK	3090	Survey	...
165	2174	Canada	3110	Interview	...
166	2175	Australia	3130	Survey	...
167	2176	India	3150	Interview	...
168	2177	Germany	3170	Survey	...
169	2178	Japan	3190	Interview	...
170	2179	South Africa	3210	Survey	...
171	2180	Brazil	3230	Interview	...
172	2181	France	3250	Survey	...
173	2182	Italy	3270	Interview	...
174	2183	Spain	3290	Survey	...
175	2184	China	3310	Interview	...
176	2185	South Korea	3330	Survey	...
177	2186	Sweden	3350	Interview	...
178	2187	Norway	3370	Survey	...
179	2188	Denmark	3390	Interview	...
180	2189	Netherlands	3410	Survey	...
181	2190	Belgium	3430	Interview	...
182	2191	Austria	3450	Survey	...
183	2192	Switzerland	3470	Interview	...
184	2193	Portugal	3490	Survey	...
185	2194	Greece	3510	Interview	...
186	2195	Turkey	3530	Survey	...
187	2196	Iran	3550	Interview	...
188	2197	India	3570	Survey	...
189	2198	China	3590	Interview	...
190	2199	USA	3610	Survey	...
191	2200	UK	3630	Interview	...
192	2201	Canada	3650	Survey	...
193	2202	Australia	3670	Interview	...
194	2203	India	3690	Survey	...
195	2204	Germany	3710	Interview	...
196	2205	Japan	3730	Survey	...
197	2206	South Africa	3750	Interview	...
198	2207	Brazil	3770	Survey	...
199	2208	France	3790	Interview	...
200	2209	Italy	3810	Survey	...
201	2210	Spain	3830	Interview	...
202	2211	China	3850	Survey	...
203	2212	South Korea	3870	Interview	...
204	2213	Sweden	3890	Survey	...
205	2214	Norway	3910	Interview	...
206	2215	Denmark	3930	Survey	...
207	2216	Netherlands	3950	Interview	...
208	2217	Belgium	3970	Survey	...
209	2218	Austria	3990	Interview	...
210	2219	Switzerland	4010	Survey	...
211	2220	Portugal	4030	Interview	...
212	2221	Greece	4050	Survey	...
213	2222	Turkey	4070	Interview	...
214	2223	Iran	4090	Survey	...
215	2224	India	4110	Interview	...
216	2225	China	4130	Survey	...
217	2226	USA	4150	Interview	...
218	2227	UK	4170	Survey	...
219	2228	Canada	4190	Interview	...
220	2229	Australia	4210	Survey	...
221	2230				