

UNITED NATIONS ECONOMIC AND SOCIAL COUNCIL



GENERAL

E/CN.12/235 28 May 1951 ENGLISH ORIGINAL: FRENCH

ECONOMIC COMMISSION FOR LATIN AMERICA Fourth Session Mexico City 28 May 1951

> -X REPORT ON FORESTS AND FOREST PRODUCTION IN LATIN AMERICA

(This paper, issued as an official ECLA document with symbol number E/CN.12/235, is a reproduction in full of the study made for purposes of information for ECLA's fourth session by the Secretariat of the Latin American Bureau of Forests and Forest Products of the FAO).

> /FOOD AND E/CN.12/235

 This document has been reproduced in New York from the original issued at Mexico City. FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS LATIN AMERICAN BUREAU OF FORESTRY AND FOREST PRODUCTS

FORESTRY AND FOREST PRODUCTION IN LATIN AMERICA

(General report prepared by the Latin American Bureau of Forestry and Forest Products of FAO, to be submitted to the fourth session of the Economic Commission for Latin America).

(Mexico City, 28 May 1951)

/FORESTRY

E/CN.12/235 Fage 3

FORESTRY AND FOREST PROJUCTION IN LATIN AMERICA

1. The Report was submitted by the representative of the Forestry and Forest Products Division of FAC to the second session of the Economic Commission for Latin America held at Havana in June 1949, and led to the adoption of a recommendation of considerable importance concerning the need to make use of this continent's forest reserves.

The text of this recommendation is to be found in Annex 1. 2. International work on forestry and forest products has been continued during the past two years, and it is now possible to offer the members of the Economic Commission for Latin America a more detailed report, based on the discussions of the last two meetings of the Latin American Forestry and Forest Products Commission held at Lima and Santiago de Chile.

I. GENERAL CONDITIONS AND PRESENT SITUATION IN LATIN AMERICA PRODUCTIVE SOURCES - FORESTS

3. Forests cover more than 40 per cent of Latin America, more than twice the total area of land devoted to farming and pasture. These 860 million hectares account for about one quarter of the world's forest lands; in fact, Latin America has a higher percentage of forest land than any other continent,

4. Given the marked difference in conditions, both as regards altitude and latitude, the types and composition of the forests vary extraordinarily. Each type is of considerable groggephic or sconomic interest and the aim of the forest policies of each country should be to determine the measures requisite for the conservation or development of forestry resources. /5. Roughly

` + ·

E/CH.12/235 Page 4

Į.

5. Roughly speaking, the forests of Latin America may be divided into three major groups:

a) the dense forests with deciduous varieties of trees, which are found in the low latitude inter-tropical areas: in the basins of the Amazon, Orinoco and Hagdalena rivers and along the coastal plains of Hexico, Central America, Colombia, Ecuador and Brazil.

From the agricultural point of view, they are of varying interest. Some of the soils are extremely fertile and, climatic conditions aside, would be excellent for agricultural colonization; on the other hand, there are vast regions of poor soil which become even more impoverished by the removal of their forest cover. Soil and climatic conditions, therefore, make it inevitable that a large proportion of these areas should be forest land. The rational exploitation of these resources should therefore be the basis of their economy. b) the natural or artificial forest lands, especially the coniferous stands of Northern Mexico, in the State of Parana . (Brazil), and in the central part of Chile, Central America and the Caribbean area, are of very great economic interest, since coniferous woods supply about 90 per cent of the world's industrial timber requirements, and the present under-production lies mainly in this field.

Although these forests are not always "physically" necessary to the soil, and although the land might be used for other agricultural purposes, nevertheless the most profitable long-term /policy policy here would be afforestation, rational exploitation and industrialization of such land.

c) the deciduous mountain forests of Mexico, Central America, Colombia and especially of the Andes, cover large areas. They are important not merely for timber production, but particularly for soil conservation. They ensure a continuity of agriculture in these regions, especially in the inter-tropical zone. These regions are often densely populated and are therefore intensively cultivated. Their agriculture is thus entirely dependent on a policy of absolute forest conservation and often on the carrying out of afforestation programmes and restoration.

This very rough report is intended to emphasize the nature of the general forestry problems in Latin America, which influence both the general and the forestry and agricultural economies of the continent.

FORESTRY PRODUCTION AND LOCAL CONSUMPTION

7. The most recent data collected by FAO concerning the production, consumption and trade in Latin American forestry products are to be found in Annex II.

8. The vast extent of the wooded area might give the impression that the continent is one of the world's greatest wood producers.

This is, unfortunately, not so, since, although the general figures for production and consumption may seem normal, their breakdown into various categories (for heating purposes, for wood pulp and for industrial purposes, etc..) reveals strange anomalies.

/9. In 1947

E/CN.12/235

Page 5

E/CH.12/235 Page 6

9. In 1947, it was estimated that 93 per cent of Latin American timber consumption was accounted for by firewood (1.1 cubic metre per capita per annum), whereas sawn wood only accounted for 5 per cent and wood pulp for 2 per cent.

The consumption of sawn wood, which is the easiest to verify, amounted to 1.2 million standards, that is to say, 9 million cubic metres of logs, only 1/17 of United States sawn wood requirements, and slightly more than the consumption of the 10 million inhabitants of Australia and New Zealand. Though the consumption of wood pulp was low (7 kilogrammes per inhabitant, about half the world average), it may nevertheless be regarded as a normal total for a continent which is still in the process of development.

10. Though its requirements in industrial timber are exceptionally low, Latin America is nevertheless compelled to resort to imports for a number of its forest products, especially of coniferous wood pulp and paper.

The 1948 statistics are still incomplete (no returns have yet been made by Argentina, Chile and Mexico, to mention only the most important), but the available data show a total value of 75 million dollars for imports of forest products by Latin America as against exports arounting to 63 million dollars.

Thus this continent, despite its enormous potential forest wealth, must at present be classed among the regions with a deficit in the balance of trade in forest products,

/II. REGIONAL

II. REGIONAL AND INTERNATIONAL PROSPECTS 11. The trend towards rapid economic development is undeniably more impressive in Latin America than elsewhere. This trend should certainly be oncouraged, since it provides one of the means of achieving a general improvement of the world's standard of living.

In the countries undergoing such development, the outstanding and most visible trend in consumption is increase, and this is particularly noticeable as regards wood and wood manufactures.

A considerable increase in wood consumption is to be expected in Latin America in the near future, in view of the following factors:

1) the existence of vast urgent unfilled requirements in several fields, such as housing, in practically every country;

2) the present rate of consumption of industrial wood which is, as has already been pointed out, extremely low;

3) the continuous increase of the population in these countries, and

4) the general trend towards increased <u>per capita</u> consumption in regions in the process of economic development.

12. This trend towards increased timber consumption is not restricted to Latin America; world demand is increasing yearly.

All FAO estimates show a prolonged world shortage of sawn wood, particularly in Europe and the Far East. The shortage in Europe was aggravated by wartime deforestation and reconstruction requirements, and has become even more acute; the estimated deficit for 1952 is 1 million standards. There is also a considerable deficit of sawn

/wood

wood in the Middle East. The world shortage of wood pulp is even more serious; and the FAO Conference at Montreal on world wood pulp problems, reached some striking conclusions; the estimates for 1955 show that whereas Europe formerly supplied wood pulp to most countries except North America, it would barely be able to cover its own requirements in that year.

13. The only means of supplying these increased regional and world requirements is to make the most intensive use of every possibility held out both by existing forest lands and by new methods of processing and using forest products.

Any considerable increase in forest production in Europe or North America, where the stands have been fully exploited for many years and often over-exploited since the end of the war, can be ruled out. Unless the Union of Soviet Socialist Republics enters the field in the near future to cover part of this deficit, which <u>a priori</u> is hardly likely, it will be necessary to resort either to the exploitation of vast virgin forests or to intensive afforestation of non-productive land or land economically destined for utilization as forest.

14. Threats of international conflict lead to increased demand for all raw materials. New sources of production will therefore be sought in regions as far distant as possible from the probable theatres of war.

15. Latin America's potential forest wealth, if exploited, would enable it to meet its total demand and to supply a part of world /demand demand for both peace and war purposes.

The exploitation of this wealth would likewise enable countries in which the traditional economy has so far been based dangerously on the export of a single agricultural product or industrial raw material to diversify their production.

As we have seen, the few statistics available suggest that imports of forest products amount to approximately 75 million dollars; by supplying its domestic needs Latin America would obviate a substantial drainage of foreign exchange and place its foreign financing on a sounder basis.

16. Since world supply is at present greater than demand and since this tendency is growing stronger, new markets for production may be easily found and retained. Present prospects are extremely favourable and immediate advantage should be taken of them, because it is essential to take advantage of the shortage in order to accustom the great world markets to the consumption of forest products which are new to them.

It must be emphasized that the existence of large local or regional markets likely both to act as a stabilizing factor and to absorb the lower grades of production is a great advantage in entering world markets and retaining them over a long period.

III. TECHNICAL PREREQUISITES FOR THE COMMERCIAL USE OF LATIN AMERICAN FOREST PRODUCTS

17. The technical prerequisites for the commercial use of Latin American forests differ for sub-tropical and temperate coniferous forests and mixed deciduous forests. /18. The methods 18. The methods of processing and using coniferous woods are well known and may easily be applied to various species in various parts of the world. To make commercial use of them is therefore very simple and would mainly entail rationalizing, diversifying, modernizing and developing existing industries. Commercial production of quality woods, well milled, well packaged and in fine condition at prices well within the range suited to considerable local consumption and, above all, to their introduction into new foreign markets are the main prorequisites.

19. Except with regard to some luxury woods and other woods used by local industry, on the whole little is known about processing and miling techniques and the full possibilities of using the raw material to be derived from mixed deciduous tropical forests. The mixture of the woods is a serious handicap for both felling and milling, but research on several continents in the laboratory and in pilot plants has shown that such processing and use were technically and economically feasible today. The mechanical industries (producing savm wood and plywood) are very well developed and excellent results have been obtained in the chemical and semi-chemical processing industries (producing wood pulp and pressed wood products).

The manufacture of wood pulp by cooking heterogeneous mixtures of leafy tropical woods is of outstanding interest to Latin America and to the rest of the world. The Latin American Commission for Forestry and Forest Products in the course of its last session therefore made an important recommendation with a view to stimulating research and /practical practical work in this field (ANNEX III).

20. From the economic standpoint, the problem consists especially in achieving the fullest possible exploitation of these forests, in order to avoid the drain on the better species which ins thus far prevailed in equatorial forests and the loss of large amounts of manufacturing waste which unfortunately is very common

In order to achieve this, forestry combines or mutually complementary industrial forestry centres should be established. The execution of such a programme in the Amazon basin in Brazil as well as in the mixed deciduous forests of Southern Chile is now being studied. The principle has been successfully applied in the coniferous stands of Europe and North America. It would be of far greater interest to apply it to equatorial forests, but these regions present certain technical problems which must be solved gradually. The results of recent experiments in frica may be useful and the Technical Assistance Programme of the United Nations should help to solve certain tempcrary difficulties.

IV. FORESTRY POLICY IN LATIN AMERICAN COUNTRIES 21. As pointed out above, forestry policy should be one of either conservation or exploitation, depending on the type and situation of the forests. Quite often, in the case of land which can be used as forest land, these two concepts may be successfully combined. /22. It has often

22. It has often been erroneously stated that the Latin American forests should be left intact because their conservation is frequently needed to protect agriculture in the neighbouring regions, because certain land can be used only as forest land, and especially because forests form a valuable reserve for the future. Virgin forest does not, however, protect the soil any better than a well-organized and rationally exploited forest; and it is not very profitable economically, since as much wood is lost annually as grows anew. The immediate intensive exploitation of a forest dces not therefore involve the depletion of future resources, but rather enables a good, and often, a high yield to be obtained from what should be a productive capital investment. It is for Governments to draw up forestry policies, but FAO 23. is in a position to render assistance in this field to any country which wants it, in particular through the Technical Assistance Programme of the United Nations. A subscription of the product of the lotter once they have been drawn up, these programmes should be carried out. Where the exploitation of the large forest stands is concerned, the execution of these programmes involves practical problems the solution of which lies chiefly with governments and 200 which do not always fall within the scope of any single does a does

24. In this field, forestry policy should concern itself with: a) the organization and mobilization of the sources of production; /b) finding

international organization.

E/CN.12/235 Page 13

b) finding the best regional and world markets for the products.
Production policy should therefore be closely connected with the commercial policy. Apart from the purely technical aspects mentioned above, there are problems of finance, equipment and personnel (technicians and labour) which must be solved.
25. Large capital investments are required for the equipment of modern forestry industries, but these investments would eliminate the need for costly imports and it has been shown that they could be easily redeemed and amortised by the export of the timber alone.

The Latin American Commission for Forestry and Forest Products has made a detailed study of this aspect of the problem and the recommendation adopted during its last session, in Santiago, and contained in Annex IV, draws the attention of governments to the need for regional studies and for close co-operation among the various international organizations interested in this particular aspect of economic development (FAO, ICLA, the International Bank for Reconstruction and Development).

26. A preliminary enquiry on the requirements of Latin American countries as regards the necessary equipment and tools for the development of their forest resources was made by the Regional Bureau of FAO, was later studied by the Commission for Forestry and Forest Products, and was then submitted to ECLA at the Havana session.

/Subsequent

1111

Subsequent studies made both by the Regional Bureau and the Equipment Section of the Forestry and Forest Products Division furnish information to governments and business men as regards various types of equipment best suited to local conditions, and also where it can be most cheaply obtained in Latin America, both in the soft currency and in the dollar areas. 27. One of the outstanding problems is undoubtedly that of obtaining competent management and skilled labour. The United Nations Technical Assistance programme offers an unusual opportunity for the solution of this difficulty and various countries have already made use of it in drawing up their forestry policy and general production plans, as well as in solving certain technical difficulties. Moreover, the Regional Bureau of FAO, which is working in close connection with IRO and ILO, can provide foreign technicians for permanent employment in new industries. 28. The FAO Latin American Commission for Forestry and Forest Products and ECLA's Economic Development and Immigration Working Group jointly studied the problem of labour from the viewpoint of the development of forest production. The results of this research and of the discussions are given in Annex V. 29. In order to successfully solve commercial problems and to prepare permanent markets for Latin American forest productions, the Commission recommended that FAO should maintain close contacts

Committee, and that it should co-operate with the European and /Latin American

not only with ECLA but also with ECE and the joint FAO/ECE Forestry

E/CN.12/235 Page 15

/CONCLUSIONS

Latin American wood merchants in order to develop direct contacts. The Latin American Commission for Forestry and Forest Products wishes to be kept constantly informed of European requirements and possibilities, in order that it may take appropriate action. For their part, the Latin American countries wish to be kept informed of the requirements and possibilities of each of their number in order to organize Latin American trade.

The field should not be limited to conifers, but should be extended to include all types of forest products, especially the deciduous species and secondary forest products, some of which are of considerable economic importance and for which profitable new markets might be found by concerted action.

The Commission has also requested Latin American governments to take all necessary measures to ensure that the regulations for the industrial processing of various forestry products are observed as strictly as they are in Europe and North America. The two latter regions are the most exacting markets, and if Latin American producers wish to place their goods they must comply with the conditions set by the buyers in those countries. 30. Maritime transport is one of the principal problems in the wood trade and the current high tariffs are an obstacle to the development of production and international trade in this field. The Regional Bureau has already made the necessary contacts with the International Forestry Commission with a view to studying the possibility of lowering shipping rates for wood and for improving

loading conditions.

and the second second second second second

CONCLUSIONS

31. The Economic Commission for Latin America at its second session showed considerable interest in the problems connected with the exploitation of forests. The Latin American Commission for Forestry and Forest Products and the Technical Regional Bureau of FAO have since studied various aspects of these problems and under the United Nations Technical Assistance Programme direct assistance may be given to governments in drawing up forestry policy and production plans.

The implementation of these policies and the carrying out of these plans often present difficulties which can only be solved by the concerted action of the various national and international organizations concerned. The Latin American Forestry and Forest Products Commission believes that the development of forest resources should be one of the principal features of economic development policies and that in any case it should never be overlooked when such policies are being implemented.

On the other hand, the Commission believes that forestry development should always be co-ordinated with other economic aspects of the country. The Economic Commission for Latin America and the Forestry and Forest Products Commission should therefore exchange information and consult with one enother in the investigation of these problems. Closer and more direct co-operation should, in certain cases, be established between these two international organizations in order that practical plans may be drawn up.

E/CN.12/235 Page 17

ANNEX I

UNITED NATIONS ECONOMIC COMMISSION FOR LATIN AMERICA . Second Session - Havana - June 1949

FORESTRY DEVELOPMENT

THE ECONOMIC COMMISSION FOR LATIN AMERICA

CONSIDERING that although Latin America's forests represent one fourth of the world's forest resources, their present contribution to the economics of the region and the world is negligible;

CONSIDERING further that the development of such resources based on modern industrial techniques and on the application of scientific forest management and systematic reforestation could substantially contribute to the welfare of the Latin American nations, facilitate the rationalization and expansion of agricultural production and constitute an important step toward the settlement of new lands and the creation of industrial employment in rural areas;

TAKES NOTE of the establishment by FAO of a Latin American Commission for Forestry and Forest Products serviced by a regional office with headquarters at Rio de Janeiro; and

1) RECOMMENDS governments to include in their economic programmes the development of forest industries and the conservation of forest resources;

2) INVITES the Executive-Secretary to make arrangements with the Director-General of FAO in order a) to promote the development of the forest industries of Latin America through the combined efforts of both organizations; and b) to explore, through the

/studies

studies on international trade which he is to undertake, practical measures for developing and fostering exports of forest products of Latin America to other parts of the world.

E/CN.12/235 Page 18

3) URGES the international organizations concerned to carry out studies for the determination of suitable sites for the establishment of modern forest industries. Such studies should have the prior approval of the governments concerned and should take into consideration the domestic and foreign possibilities for financing.

/ANNEX II

F-51/LA-DOC.2

ANNEX II

PRCDUCTION, CONSUMPTION AND TRADE OF FOREST PRODUCTS IN LATIN AMERICA

Data obtained from the FAO Statistical Yearbook on Forest Products (1947-48-49-50)

	C	10100	110.0		آم م آم م	- T	here a				0			
Constant	Sawn wood 1000 mට (3)				Wood pulp and							· · · ·	Value	
Country					pulp products 1000 metric			and	products			U.S.		
					1000 metric			firewood	1000 mJ (r)			1000 \$		
								1000 m^2 (r)						
••••••••••••••••••••••••••••••••••••••								1	and and the second s					
*	Ered	imp_	Exp.	ucnsur p	Proj	1012-	June	Product	Prod.	Imr		Consump.	Import.	Export
Bolivia		32	3	· · · ·	1.4	· · · · · ·				60	15			
Brazil	4,225	r	655	3,484	65	151	216	94,000	101,400	640	1,240	100,800	27,864	54,382
British	- 			1	•			· .						
Grud (n.)	47	- 4	15	36		147 147		191	320	11	· 80	250	1,299	1,110
"Honduras	31	1 6	26	6				13	100	2	60	40	210	2,959
Chile	536		117	425	13	33	- 46	3,682	6,700	150	220	6,630		
Colombia	50	.4		54	100 and 100	19	19	75	630	75	-	700	221	48
Costa Rica	-	-				0		-	•••		. 30	•••		
Cuba	108	257		365				640	1,500	430	· •••	1,900	7,714	
Dominican													a state of the	
Republic	59	1	7	53		2	2	161	340	. 8	25	323-	2,472	345
El Salvador	• • •	4		• • •						20				
Guatemala	• • •	1				Augusta Maria		300	460	30	<u> </u>	450		
Haiti	49	4		53				1,633	1,600	7	2	1,600	351	-54
Honduras	• • •		88	• • •		1	l	•		:3	150		517	2,589
Mexico			278	•••				1,063	3,500	55				
Nicaragua			10		н.						90			
Peru	56	79	6	129	e 414	15	15	1,244	460	170	10	620	2,728	380
Puerto Rico								2,332	2,300					
Surinam	12	2	2	12		1	.4	200	300	7	- 40	270	164	344
Trinidad				•				58	140			•••	6,070	159
Uruguay	• • •	84		• • •		29	29	1,460	1,500	810	-	2,300	6,389	
Venezuela	354	31	3	382	•••	37	37	112	810	200	5	1,000	14,102	50
Netherlands		·										·		
West Indies		24	!							55	-	• • •	840	
British	:								<u> </u>				8	
West Indies		40	!	1;14		3	3		41	90	30	100	6,444	678
(-) Nothin	lg												TT VETT	-1

(...) Not available

E/CN.12/235 Page 19

/ANNEX III

E/CN.12/235 Page 20

ANNEX III

LATIN AMERICAN FORESTRY AND FOREST PRODUCTS COMMISSION

Third Session - Santiago, Chile December 1950

CHEIICAL USES OF WOOD

1) During the discussion, the Commission first tried to evaluate the possibilities of chemical uses of tropical woods. As working documents, it had an interesting study submitted by the French delegation and a synopsis prepared by the Secretariat. The discussion almost immediately extended to woods of temperate regions because in some cases the problems were so similar.

2) With regard to processing techniques, the Commission considers that it should concern itself on the one hand, with techniques for fuller use of tropical forest resources and on the other, with manufacturing methods for treating mixed and sometimes complex mixed woods and leafy species of both tropical and temperate woods.

3) The Commission agreed that several processes are now scientifically established in principle and the techniques of some of them have already been prefected both in the laboratory and in pilot plants.

4) The Commission considers those problems of general concern to all Latin American countries and would therefore like the FAO to assist in establishing those techniques in final form so that they may be applied industrially. Consequently it

/RECOMMENDS

RECOMMENDS the FAO to study the possibilities of assisting the Latin American countries in developing industrial techniques for the chemical processing of woods of the continent of America. It considers that those studies should be made in Latin America, in the vicinity of the forests to be exploited, so that they will be undertaken in suitable conditions, account being taken of local factors and economic problems.

SUGGESTS, in view of the urgency of the problem, that maximum use should be made of the laboratories and industrial plants on the continent, and that, so far as possible, the assistance of technicians experienced in dealing with those specific problems should be sought.

REQUESTS the FAO to examine the possibility of using Technical Assistance funds for these studies and suggests that, in the common interest, part of some national contributions to the Technical Assistance Programme might be directly applied for that purpose.

/ANNEX IV

ANNEX IV

LATIN AMERICAN FORESTRY AND FOREST PRODUCTS COMMISSION

Third Session - Santiago, Chile December 1950

FINANCIAL ASPECT OF TECHNICAL ASSISTANCE PROGRAMMES AS APPLIED TO FORESTRY

1) In the course of its discussion of problems of Technical Assistance and its studies on immigration into Latin America in connexion with forestry development, the Commission noted that those problems had considerable financial implications.

2) The Commission also notes that generally the development of forest resources should be co-ordinated with other factors in the country's economy. Forestry problems should therefore be studied in relation to proposed developments in the agricultural and industrial branches of the economy.

3) The Commission believes that Technical Assistance missions which are to work in any country should normally include competent specialists qualified to study and advise regrading the forestry aspects of problems.

Therefore, the Commission:

RECOMMENDS that, when governments prepare their Technical Assistance programmes, they should recognize: a) the need to include a study of the financial implications of forestry projects, b) the need during the studies, to examine with the authorized government groups the possibility for countries to use their own financial resources to execute forestry projects, c) the possibility and the need to /co-operate

E/CN.12/235 Page 23

co-operate with ECLA, the international Bank and other credit organizations in studying the financial aspects of forestry projects.

ANNEX V

LATIN AMFRICAN FORESTRY AND FOREST PRODUCTS COMMISSION

Third Session - Santiago, Chile: December 1950

LABOUR AND IMMIGRATION PROGRAMMES IN RELATION TO THE DEVELOPMENT OF FOREST CULTIVATION AND THE EXPLOITATION OF FOREST PRODUCTS

1) The Commission emphasized the importance which it attributes to the possibilities of forest development in connexion with immigration problems.

2) The encouragement of forest cultivation and of forest production in Latin America a problem of economic development, involves not only technical considerations that concern the FAO directly, but also technical, financial and labour questions in whose solution the help of the United Nations Economic Commission for Latin America and of other specialized international organizations, is of the utmost importance. The Commission had already recognized the importance of these matters, and it now considers that they should be studied basically, in the light of specific and concrete short-term projects, which can be carried out as part of a general programme of forestry policy for one country or for a vast area.

3) The Commission considers that immigration of labour into the zones concerned is, in most cases, the only solution to the problem. It believes, also, that the concept of integrated forest industries, as recommended by the FAO, is, in many instances, the best method of meeting the situation considering the technical, social and economic aspects of the problem.

/The nature

The nature and volume of labour immigration will vary. Migration can originate in certain zones within the same country or from abroad; and its characteristics will depend on existing physical, climatic or social conditions and on the type of labour required.

4) The Commission is of the opinion that immigration into temperate and sub-tropical zones from over-populated European countries where technicians are available can contribute effectively to the development of forest production to the mutual benefit of -European and Latin American countries

5) In tropical and equatorial zones, the problems of obtaining labour are also of great importance and are even more complex. What is needed is a planned, climatically adaptable immigration into the areas of forest production. Where there are special difficulties, intensive mechanization could substantially compensate for the shortage of manual labour. Existing conditions must be studied carefully before immigrants are established. It is probable that European immigration into such areas would be very limited.

The Commission

WISHES TO CALL THE ATTENTION of the Member Governments to the importance of immigration as a means of promoting the development of forest culture and the production of forest products.

RECOMMENDS to the Member Governments that they should complete special studies with this objective in view, as rapidly as possible, relating them to a forestry policy consistent with the general economic situation of the country. /SUGGESTS SUGGESTS to the Member Governments that, when they deem it necessary, they should make the best use of the facilities that are offered in the Technical Assistance Programme of the United Nations, and that they should request visiting missions to assist them in their studies. These studies should cover the problem in all its aspects, and should refer particularly to the financing of such projects.

SUGGESTS further that the Member Governments should initiate, without loss of time, the study of specific projects for the development of forest production and immigration. Where the execution of these projects presents difficulties relating to economic, labour or financial matters which cannot be solved by governments and are within the competence of international organizations, the governments should request help from such organizations, especially the FAO, the Committee for Economic Development and Immigration of the Economic Commission for Latin America of the United Nations (in which the International Labour Organization and other organizations interested in immigration questions are represented) and the International Bank.

6) To facilitate the co-ordination of supply of and demand for labour, and, in particular, of technical personnel, the Commission

REQUESTS the FAO that, in co-operation with the Latin American Regional Labour Office of the International Labour Organization (ILO), and with Regional offices of the International Refugee Organization (IRO), it should continue to assemble information regarding labour requirements in forest cultivation and industrial forest production /classifying

t

classifying it according to specialized skills, and that its findings should be distributed among the agencies concerned in each country.

RECOMMENDS to the governments that they should establish special employment offices or sub-offices, for the placement of forestry technicians, in order to appreciate the needs of forest cultivation and forest industrial processes, and thus to satisfy them. It is understood that the Latin American Regional Labour Office of the International Labour Organization (ILO) may assist the governments to establish these employment services.
