

JOINT SUB-COMMISSION ON MEDITERRANEAN FORESTRY PROBLEMS

"Silva Mediterranea"

FOURTH SESSION

(Athens, 1 to 5 June 1954)

FINAL REPORT

The Fourth Session of the Joint Sub-Commission on Mediterranean Forestry Problems was held at the Forest Research Institute in Athens, from 1 to 5 June 1954.

Delegates from the following countries were present: FRANCE (Metropolitan, Morocco, Tunisia), GREECE, ISRAEL, ITALY, PORTUGAL, SPAIN, TURKEY, UNITED KINGDOM (Cyprus) and YUGOSLAVIA. The INTERNATIONAL UNION OF FOREST RESEARCH ORGANIZATIONS was represented by observers, while Mr. Leloup, Director, Forestry Division represented the Director-General of FAO. Messages regretting their inability to send representatives, but requesting information on the Session's decisions, were received from Egypt, Libya and Syria. The list of participants appears in Annex 1.

The Session was opened at the Academy of Greece by Mr. A. Pavari, Chairman of the Sub-Commission, in the presence of the Minister of Agriculture. He conveyed to the delegates a message from the Honorary Chairman of the Sub-Commission, Mr. Ph. Guinier, who apologized for not being able to be present but sent his best wishes for the success of the meeting. The Sub-Commission in its turn congratulated Mr. Guinier on his recent election as a member of the French Academy of Sciences.

The Sub-Commission adopted the Provisional Agenda as drawn up by the Secretariat in consultation with the Chairman, and in the course of its deliberations took decisions and passed resolutions which are recorded below.

Two working parties were set up to study problems concerning (a) land use and (b) the delimitation of the Mediterranean region and the drawing of ecological maps. Their reports were approved by the Sub-Commission and appear in the corresponding sections of the present document. Further, the Sub-Commission concurred in the report of the Permanent Working Party on Cork-Oak, which met in the course of the Session (2 June). The membership of the Working Parties mentioned above is given in Annex 2.

In addition to the papers prepared by the Secretariat on the various items of the agenda, many reports were submitted by the various delegations and distributed during the Session. The complete list of papers and reports appears in Annex. 3.

I. NEW STATUS OF THE SUB-COMMISSION

With regard to its new status as decided by the Seventh Session of the Conference of FAO, the Sub-Commission considered that it would be advisable to amend its Rules of Procedure accordingly. It therefore recommended that Member Governments submit relevant proposals to the secretariat, to be taken into account when drawing up the new rules which would be submitted to the Sub-Commission at its next session.

In the meantime, however, it was thought advisable to amend provisionally rules 7 and 8 to read as follows:

"Rule 7: The Sub-Commission shall elect from among the delegates a Chairman and two Vice-Chairmen, who will normally remain in office for two years and in any case until the session following their election. They are eligible for re-election".

"Rule 8: If the Chairman is absent from a meeting or any part thereof, one of the Vice-Chairmen shall preside".

So as to present a clear picture of the scope of the Sub-Commission's interests and encourage participation in its activities by other countries having problems similar to those of the Mediterranean region proper, the Sub-Commission decided that its program of work for coming sessions should comprise all the topics that had to date been placed on its agenda.

Finally, the Sub-Commission unanimously approved a proposal made by the Chairman on behalf of the Honorary Chairman, to use as a subsidiary title "Silva Mediterranea", the name of the former international Mediterranean forestry association, in recognition of the work it had performed and to emphasize the link in continuity between it and the present body.

II. LAND USE PROBLEMS

The Sub-Commission reviewed a Secretariat paper on land use problems in the Mediterranean basin, and took note of the importance which the United Nations Economic Commission for Europe (ECE) is attaching to the development of certain Mediterranean countries. The Sub-Commission affirmed its willingness to cooperate with ECE on forestry aspects of the economic development of the region, and to carry out any studies that might be requested. The Chairman invited to get into touch with the Executive Secretary of ECE, through the secretariat, in order to establish what studies might most profitably be undertaken.

1. Forest Grazing: the Sub-Commission took note of the report of the Technical Meeting on Forest Grazing and approved in principle its conclusions. It wished, however, to call attention to some aspects peculiar to forest

grazing policies in the Mediterranean region, resulting from the character of the Mediterranean forests and the prevailing economic and social conditions.

The Mediterranean forests, misused since time immemorial and growing in a very particular environment, are essentially unstable. Although its major functions are production and protection, the latter being paramount, the forest has several other roles to play and grazing policies will therefore vary. The main function of some woodlands is production of fruits and these areas are traditionally managed for grazing, while in certain timber producing forests grazing is completely prohibited.

Whatever the adopted policy, the Sub-Commission was firmly of the belief that the forest should be preserved regardless of its condition, not just to serve as a source of timber and accessory products, but rather as a means of checking surface runoff through better infiltration of rainfall, which in the region is very unevenly distributed throughout the year. In this connection it was emphasized that fire, owing to the physical and social conditions prevailing in this region, should be used with extreme caution. Paragraph 18 of the report under reference should therefore be interpreted in a very restrictive sense.

To formulate and implement a forest grazing policy, ranging from the complete prohibition of grazing in the forest to the optimum utilization of all its resources, the Sub-Commission particularly stressed the importance of:

- (a) informing political circles of the reasons on which any given policy is based, in order to create an atmosphere favorable to the implementation of the measures that need to be taken.
- (b) developing such a policy within the more general framework of a complete land utilization policy, in cooperation with agriculture and livestock management, taking into due account agrarian structure. In certain cases this policy should require livestock keeping to be contingent on holding land.
- (c) widening the field of responsibility of foresters so that they should not only be concerned with checking and controlling grazing abuse, but should also be entrusted with taking measures to provide people deprived of grazing areas with alternative means of living (for example, by planting fruit trees at the same time as soil rehabilitation work is carried out).
- (d) creating alternate supplies of forage particularly by planting fodder trees and other forage plants.
- (e) carrying out publicity campaigns through the medium of field demonstrations and schools.
- (f) undertaking practical research with a view to determining sound grazing techniques and particularly the carrying capacity of grazing

grounds, and of initiating studies of the types of forests to be protected. The Sub-Commission recommended to Governments that funds be made available for such research and studies.

At the international level the Sub-Commission thought it advisable that close liaison be established between bodies concerned with grazing questions. In particular, the Sub-Commission expressed the wish that there be close liaison with FAO's Mediterranean Working Party on Pasture and Fodder Development, both at the Secretariat level and through the participation of the same governmental delegates in the meetings of both bodies. The Sub-Commission also expressed the wish that foresters be included in the national Pasture and Fodder Development Committees, which have already been or will be set up in the future.

2. Trees Outside the Forest: after approving the conclusions in the paper prepared by the secretariat on this topic, and reviewing the relevant papers submitted by a number of delegations, the Sub-Commission considered that a distinction needed to be drawn between (a) timber-producing trees and (b) fruit-producing trees.

(a) timber-producing trees are of great importance to supply construction timber and also to serve as windbreaks, especially where the forested area is small, and even though their planting may deprive agriculture of considerable areas. The Sub-Commission drew attention to the importance which it attached to the studies now being conducted by the International Union of Forest Research Organizations (IUFRO) on the influence of trees on the environment and adjacent croplands, and requested that these studies be continued.

(b) present and potential markets for the produce must govern the choice of fruit-producing trees to be planted, in order to avoid over-production. Such trees are readily appreciated by Mediterranean peoples, and when planted on contour terraces may sometimes serve the same function as forest proper. Where foresters themselves arranged to plant fruit trees on terraces in connection with soil conservation works, this contributed to the local popularity of the Forest Service and helped it in its purely police tasks. The Sub-Commission emphasized that, when foresters themselves were not directly responsible for such undertakings, at least their advice and cooperation should be invited.

III. MAP OF THE MEDITERRANEAN REGION AND ECOLOGICAL MAPS

1. Map of the eu-mediterranean region: after the explanations of Messrs. De Philippis and Gaussen had been discussed, the Sub-Commission adopted the map as submitted, on the understanding that it was regarded as merely provisional. Only when the detailed ecological maps have been completed, will it be possible to delimit precisely the boundaries of the eu-mediterranean region.

The Sub-Commission requested FAO to publish this provisional map as soon as practicable after the corrections requested by some delegations had been incorporated. An explanatory report should accompany the map.

2. Map of the Transition Regions: The boundaries of these areas cannot be determined on the general map until all the countries concerned have supplied the necessary information. A list of these countries appears in document FAO/CEF/SCM/33 and 33 Corr. 1.

3. Ecological Maps: The Sub-Commission recommended that ecological maps giving as much detail as possible should be drawn up by each member country to be considered at subsequent sessions, each country being free to choose the methods it prefers. A cartographic documentation on climate, soil and plant- geography was indispensable to compiling these maps, and consequently the Sub-Commission invited member countries to prepare such a documentation, sending a copy to the secretariat as previously recommended. The Sub-Commission was informed that France (Metropolitan, Morocco, Tunisia), Italy and the United Kingdom (Cyprus) would be prepared to present such ecological maps at a future session.

It would be advisable for the Secretariat to get into touch with those international organizations concerned with parallel problems (IUFRO, International Union of Biological Sciences, etc.) to assure the necessary liaison.

Finally, the Sub-Commission decided to entrust Messrs. De Philippis and Gausson with compiling an ecological map for the entire Mediterranean region, based on the documentation submitted to the Secretariat. This general map would naturally be less detailed than the national maps.

IV. EUCALYPTS IN THE MEDITERRANEAN BASIN

The Secretary commented on document FAO/CEF/SCM/46, and drew the attention of the delegates to the programme of the forthcoming Study Tour to Morocco, and the proposed agenda for the working sessions.

After hearing reports from several delegations on the work on eucalypts carried out in their respective countries, the Sub-Commission recommended (a) that national working teams be set up at the earliest possible date in those member countries which had not yet done so, to include representatives of research institutes; and (b) that representatives of such teams be delegated to take part in the Study Tour to Morocco.

The Sub-Commission also requested members expecting to participate in this study tour to forward reports on the various items of the provisional agenda to the secretariat as soon as possible.

As for the studies to be undertaken, the Sub-Commission approved the Secretariat's proposals in paragraph 6 (c) of the document referred to above, with the addition of cultivation techniques. These proposals related to the

possibility of adapting the various species of eucalypt to (a) habitats with particularly cold winters, (b) habitats with particularly dry summers, (c) calcareous soils, (d) salty lands, and (e) very clayey soils.

The Sub-Commission congratulated both the author, Mr. A. Metro and FAO on the publication of the study "Eucalypts for Planting".

During the discussions, attention was drawn to the recommendations made by the participants in the Eucalypt Study Tour to Australia, organized by the FAO in 1952 on (a) the publication in single volume of abstracts of all literature relevant to the genus Eucalyptus and (b) the setting up of a permanent bureau to collect information concerning Eucalyptus. The Sub-Commission invited the Director of the Forestry Division of FAO to consider that further action could be taken for their implementation.

The representatives of IUFRO informed the Sub-Commission of facilities offered by members of the Union in regard to the exchange of seed for experimental purposes. The Sub-Commission took note of this offer with appreciation.

It was not thought necessary to recommend the formal setting up of a Eucalypt Working Party as the national teams as a whole already constituted a kind of regional body. However, the Sub-Commission expressed the wish that similar regional groups be created within the Latin American and Asia-Pacific Forestry Commissions.

V. AFFORESTATION AND REFORESTATION TECHNIQUES

After taking note of the reports presented a general discussion on this subject took place which gave rise to a very fruitful exchange of ideas.

The Chairman pointed out that the study of afforestation and reforestation techniques constituted one of the major activities of the "Silva Mediterranea"; it was consequently resolved to set up a Permanent Working Party on Afforestation and Reforestation, to collaborate with the appropriate section of IUFRO.

The Sub-Commission invited Member Governments to appoint representatives to this Working Party as soon as possible, and decided that its meetings should normally take place just prior to the Sub-Commission's sessions. Only in exceptional cases should the Working Party be convened separately.

VI. PRODUCTS OF THE MEDITERRANEAN FOREST OTHER THAN WOOD

The Sub-Commission noted with considerable interest the papers prepared on this topic by the secretariat.

After a thorough and lively discussion, the Sub-Commission decided to limit the scope of the investigation in question to products other than wood coming only from the forests of the eu-mediterranean and transition regions. If production figures also include produce obtained outside these forests, rough estimates should be given of the production coming from the forest proper.

The Secretariat was instructed to send one copy of document FAO/CEF/SCM/48 Add.1 to all chiefs of Forest Administrations in the Member Countries, with the request that all possible additional information should be forwarded not later than 1 October 1954. On the basis of the additional information which is submitted, the secretariat should decide, in consultation with the Chairman, whether or not to proceed with the preparation of a printed publication on this subject, as was recommended by the Sub-Commission at its Third Session.

Finally, the Sub-Commission reviewed several reports presented by the Greek delegation on pine-tapping, and a thorough discussion followed on this topic.

VII. REPORT OF THE PERMANENT WORKING PARTY ON CORK-OAK

The Sub-Commission approved the report (Annex 4) of the Permanent Working Party on Cork-Oak and congratulated the Chairman and members of this party for the work accomplished.

VIII. OTHER BUSINESS

1. Following the presentation by the Greek delegation of a paper on the use of the Control Method (Méthode du Contrôle), the Sub-Commission decided to place the question of management and silvicultural treatment of the Mediterranean forest on the agenda of its future sessions.

2. The Sub-Commission also invited the Director of the Forestry Division of FAO to consider periodically including in Unasylva material relating to the activities of the "Silva Mediterranea" and on Mediterranean problems in general.

IX. ELECTION OF OFFICERS

Mr. Pavari (Italy) was unanimously re-elected Chairman. In accordance with the provisional modifications made to the Rules of Procedure, the Sub-Commission elected Messrs. E. Gonzalez Vazquez (Spain) and L. Marković (Yugoslavia) as Vice-Chairmen.

X. DATE AND PLACE OF THE NEXT MEETING

The Sub-Commission thanked the delegate of France most warmly for his proposal that the next session should be held in the Antibes area, where the last meeting of the "Silva Mediterranea" took place in 1932, attended by its founder, Mr. Robert Hickel.

The Sub-Commission also took note that the Government of the United Kingdom had confirmed the invitation informally presented at the Third Session to hold one of the next sessions of the Sub-Commission in Cyprus.

The delegate of the United Kingdom was asked to convey the Sub-Commission's best thanks to his Government for this very generous offer.

In the light of these invitations and of those already extended by the Governments of Israel and Spain, the Sub-Commission decided to delegate a final decision on the date and place of its next Session to the Director-General of FAO, after consultation with the countries concerned.

XI. ARRANGEMENTS FOR THE SESSION AND STUDY TOUR

The Sub-Commission expressed its gratitude to the Greek Government and to the Director-General of Forests of Greece for the kind hospitality and arrangements made for the session. It also acknowledged with sincere thanks the facilities accorded for the subsequent study tour, and the excellent technical preparations made in this connection.

LIST OF PARTICIPANTS

I. DELEGATES

FRANCE

Metropolitan

A. DUGELAY, Conservator of Waters and Forests, Nice
H. GAUSSEN, Professor, Faculté des Sciences de Toulouse

Morocco

J.P. CHALLOT, Conservator of Waters and Forests,
Direction des Eaux et Forêts, Rabat.

Tunisia

G. LACOURLY, Ingénieur des Eaux et Forêts, Ministère de
l'Agriculture, Tunis.

GREECE

A. CRISTODOULOPOULOS, Director General of Forests, Ministry of
Agriculture, Athens.
A.COSTANTELOS, Ministry of Agriculture, Athens.
Ch.DIAPOULIS, Athens University, Athens.
A. GEORGOPOULOS, Ministry of Agriculture, Athens.
G. KOSSENAKIS, Director, Ministry of Agriculture, Athens.
P. MARGAROPOULOS, Ministry of Agriculture, Athens.
N. METAXAS, Ministry of Agriculture, Athens.
Ch.MOULOPOULOS, Professor, Salonika University, Salonika.
K. OEKONOMIDES, Director, Ministry of Agriculture, Athens.
A. YANNACOPOULOS, Ministry of Agriculture, Athens.

ISRAEL

A. GOOR, Director, Forest Research Station, Nathania

ITALY

A. DE PHILIPPIS, Professor, Facoltà Agraria e Forestale,
Via delle Cascine 19 Firenze.
A. PAVARI, Director, Stazione Sperimentale di Selvicoltura, Via
delle Cascine 1, Firenze.
G. SACCHI, Director-General of Forests, Ministry of Agriculture,
Rome.

PORTUGAL

J. ALVES, Vice-President, Junta Nacional da Cortica, Lisbon.
J.V.NATIVIDADE, Professor, Alcobaça.

SPAIN

E. GONZALEZ VAZQUEZ, Professor, Residencias de Profesores, 3,
Ciudad Universitaria, Madrid.

TURKEY T. EREN, Orman Umum Müdürlüğü, Ankara.
A. SANVER, Orman Umum Müdürlüğü, Ankara.

UNITED KINGDOM J.W. CHAPMAN, Conservator of Forests, Nicosia.
C. MICHAELIDES, Forest Department, Nicosia.

YUGOSLAVIA L. MARKOVIC, Federal Institute of Forest Research, Belgrade.

II. OBSERVERS

A. GREECE E. GEORGOULIS, Ministry of Agriculture, Athens.
P. GREKIOTIS, Ministry of Agriculture, Athens.
M. KLEMME, American Mission, Athens.
I. PAPAJOANNOU, Professor, Salonika University, Salonika.

B. INTERNATIONAL UNION OF FOREST RESEARCH ORGANIZATIONS

A. PAVARI, Florence, Italy
A. DE PHILIPPIS, Florence, Italy

III. FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

M. LELOUP, Director of the Forestry Division,
Representative of the Director General, Rome.
W.R. CHAPLINE, Forestry Officer, Rome.

IV. SECRETARIAT

R.G. FONTAINE, Chief of the Forest Policy Section,
FAO, Rome.
O. FUGALLI, Forestry Officers, FAO, Rome.

MEMBERSHIP OF THE WORKING PARTIES

I. LAND USE

Chairman : A. PAVARI
Rapporteur : J.P. CHALLOT
Members : G.W.CHAPMAN
A. DUGELAY
A. GOOR
G. LACOURLY
P. MARGAROPOULOS
L. MARKOVIC
G. SACCHI

II. DELIMITATION OF THE MEDITERRANEAN REGION AND ECOLOGICAL MAPS

Chairman : A. DE PHILIPPIS
Rapporteur : H. GAUSSEN
Members : E. GONZALEZ VAZQUEZ
P. GREKIOTIS

III. PERMANENT WORKING PARTY ON CORK-OAK

Chairman : J.V. NATIVIDADE
Rapporteur : A. DUGELAY
Members : J. ALVES
E. GONZALEZ VAZQUEZ

LIST OF DOCUMENTS

A. Papers prepared by the Secretariat

- *F. :- FAO/54/4/2422 : Emploi du Temps provisoire
- F. :- FAO/54/5/2692 : Corrigendum à la note sur l'Emploi du Temps provisoire
- *F./E.:- FAO/CEF/SCM/44 : Provisional Agenda
- F./E.:- FAO/CEF/SCM/46 : Eucalypts in the Mediterranean Basin Note of the Secretariat.
- F./E.:- FAO/CEF/SCM/47 : Land Use Problems in the Mediterranean Basin - Note of the Secretariat.
- F./E.:- FAO/CEF/SCM/47 Add.1: The Importance of Trees in Land Utilization - Note of the Secretariat
- F./E. :- FAO/CEF/SCM/48 : Accessory Products of the Mediterranean Forest.- Note of the Secretariat.
- F.- :- FAO/CEF/SCM/48 Add.1 : La Production accessoire de la Forêt Méditerranéenne.
- F. :- FAO/CEE/SCM/50 : Note du Secrétariat sur le Voyage d'Etude
- F./E. :- FAO/CEP/SCM/51 : New Status of the Sub-Commission - Note of the Secretariat.

B. Reports submitted by delegations

1. Land use problems

- F. :- FAO/CEF/SCM/47-A : Note sur le Role de l'Arbre en Pays méditerranéen, by A. Dugelay (France)
- F. :- Recherche au Maroc d'un équilibre agro-sylvo-pastoral, by J.P. Challot
- F. :- Note sur la Situation en Tunisie, by G. Lacourly
- F. :- Le Role du Cyprès dans l'économie rurale du pays, by P. Grekiotis (Greece)
- F. :- Rapport sur l'importance des plantations de feuillus à croissance rapide dans les régions agricoles, by L. Loucopoulos
- F. :- Le Rôle de l'Arbre dans les problèmes d'utilisation des sols en Israël.
- *E. :- Cyprus: A Note on the Role of Trees in Areas outside the Main State Forests, by G.W. Chapman.

*F. = French only

*F./E = French and English

*E. = English only

2. Eucalypts in the Mediterranean Basin

- E. :- FAO/CEF/SCM/46-A : Eucalypts in the Mediterranean Basin by M. Chudnoff (Israel)
- F. :- FAO/CEF/SCM/46-B : L'Eucalyptus dans le Bassin Méditerranéen
La Culture des Eucalyptus en Israel, by R. Karschon.
- F. :- FAO/CEF/SCM/746-C : Résumé des Activités du Groupe de Travail
Français de l'Eucalyptus.
- E. :- Eucalypts in the Mediterranean Basin: Report of the United -
Kingdom (Cyprus) Delegation, by G.W. Chapman.

3. Afforestation and Reforestation Techniques

- F./E. :-FAO/CEF/SCM/45-A : Afforestation Techniques in Southern
Mediterranean France.
Progress Report on Research Work and
Experiments, by M. Widman.
- F. :- FAO/CEF/SCM/45-B : Techniques de Reboisement en Israel, by R.
Karschon
- F. :- FAO/CEF/SCM/45-C. : Rapport sur les Reboisements et leurs
Techniques en Yougoslavie, by L. Markovic
- F. :- Techniques des Boisements et des Reboisement, by A. Constantellos
(Greece)
- F. :- La Sécheresse, les hautes températures et la technique du
reboisement des pays méditerranéens, by Ch. Mouloupoulos (Greece)

4. Delimitation Map of the Mediterranean Region and Ecological Areas

- F./E. - FAO/CEF/SCM/33 Corr.1 : - Corrigendum to the report of the Working
Party on the Delimitation of the
Mediterranean Region.
- F. :- Ecologie des pays méditerranéens, by H. Gaussen
- F. :- Observations sur l'expansion et la composition de la végétation du
pays au point de vue phyto-géographique, by P. Grekiotis (Greece)
- E. :- Ecological Maps: Report of the United Kingdom (Cyprus) Delegation,
by G.W. Chapman.

5. Accessory Products of the Mediterranean Forest

- F./E :- Les Méthodes du gemmage en Grèce, by G. Kossenakis
- F. :- Conclusions tirées des essais de gemmage expérimental effectués sur
des sujets de Pin d'Alep (Pinus halepensis Mill.) de la forêt
royale de Tatoi en Attique (Grèce), by B. Drouvas et D. Chinopoulos

- F. :- L'Hybridation entre les pins méditerranéens et son influence sur la Gemme surtout en Grèce, by J.C. Papajoannou.

6. Miscellaneous

- F. :- Portugal: Relèvement forestier du pays - Nouvelles perspectives
- F. :- Sur la nécessité de l'application de la méthode d'aménagement dite du Contrôle, by A. Georgopoulos (Greece)
- F. :- Extinction des incendies des forêts par contre-feu à l'aide de pulvérisateurs, by M. Théodoropoulos (Greece)
- F. :- Observations sur quelques clones du peuplier dans les pépinières, by A. Georgopoulos (Greece)
- E. :- A Preliminary Note on Capnodis miliaris attacking poplars in Israel

Note:- Papers and reports bearing the symbol FAO/CEF/SCM/ may be obtained from the secretariat.

REPORT OF THE PERMANENT WORKING PARTY ON CORK-OAK

The Permanent Working Party on Cork-Oak met on Wednesday 2 June 1954, under the Chairmanship of Mr. J.V. Natividade. The meeting was attended by Messrs. J. Alves, A. Dugelay and E. Gonzalez Vazquez. Mr. A. Dugelay was appointed rapporteur. Messrs. A. Metro and G. Giordano apologized for not being able to participate.

The agenda of the Working Party included the following main items:

1. Inventories
2. Technical Questions

1. INVENTORIES

In pursuance of the decisions taken during the meetings of the Permanent Working Party on Cork-Oak and of the Sub-Commission, held at Lisbon in May 1951 and at Istanbul in May 1952 respectively, the Secretariat of the Sub-Commission had received the following documents:

(a) the inventories submitted by France (Metropolitan, Algeria, Morocco and Tunisia) and Italy, prepared in accordance with the questionnaires as approved by the Sub-Commission at its Third Session. An explanatory note was attached to the inventory of Italy on silvicultural treatment, output, and stripping techniques, as well as several statistical documents;

(b) a paper on the composition and production of the cork-oak forests of Spain, including two diagrammatic maps on the distribution of cork-oak and output of cork;

(c) a progress report on the inventory of cork-oak stands being made in Portugal, giving information on how the data obtained from aerial photography, supplemented by field surveys, were used. The general principles of this kind of operation had already been outlined during the Lisbon meeting mentioned above.

In addition, Mr. Alves submitted the first sheet just completed of the 1/250,000 map relating to the south of Portugal, where there are about 427.000 hectares of cork-oak stands. This map is extremely interesting as it gives complete and precise information on the forests of cork-oak growing in the various communes and on their density.

This general map for the south of Portugal was obtained by the photographic reduction of the 1/25,000 agricultural and forest maps, drawn up for the Agricultural Development Plan of Portugal. The latter maps will eventually cover the entire country with a total of 615 sheets. Portugal, therefore, will be able to submit the requested inventory in a very accurate form as soon as

the compilation of the maps mentioned above has been accomplished.

In view of the precise information obtainable from this kind of document, the Working Party suggested (i) that all cork producing countries draw up similar maps on the basis comparable data and (ii) that FAO should, accordingly, invite the Governments concerned to set aside the necessary funds.

The Working Party noted with appreciation that the Portuguese Government was ready to supply all relevant information on this point, to help the other cork-producing countries undertake similar work.

2. TECHNICAL QUESTIONS

In accordance with the suggestions made by Messrs. Alves and Natividade and those contained in a letter from Mr. Metro, the Working Party considered that the following points in particular concerning cork-oak forests warranted immediate attention and study:

- (a) maintenance of soil fertility;
- (b) regeneration methods;
- (c) selection and breeding of cork-oak;
- (d) cultivation techniques.

In this connection the Working Party expressed great interest in (i) a note by Mr. Metro on the silvicultural measures applied to Cork-oak forests in Morocco, setting out the cultivation practices and stripping rules in force in French Morocco; and (ii) a note by Mr. Gonzalez Vasquez on the density of cork-oak stands in Spain in relation to their output of cork and acorns.

- (e) chemistry of cork and outlets for cork-base products as a result of recent developments and advances in various countries;
- (f) cork technology.;
- (g) control of cork-oak parasites, and mainly of:
 - (i) Lymantria dispar (estimate of damage - organization of chemical and biological control). In this connection the Working Party was informed of the results obtained in Portugal by chemical control from 1949 to 1953. After the spraying of insecticides over 20,000 more hectares envisaged for 1954, this pest can be considered to be under control.
 - (ii) the so-called "white worms", larvae of several insect species which jeopardize the regeneration of cork-oak in Morocco.
 - (iii) the Mediterranean Hypoxylon, which problem is to be tackled on a cooperative basis by all interested countries;
- (h) technical and commercial terminology in order to obtain a standardization in the grading of products according to their origin, size and quality. The standardization of the types and qualities of cork for grinding has already begun in Portugal. Studies are in progress on the standardization of all the other types of cork utilized as raw material, as well as of the manufactured products.
- (i) technical assistance to growers to increase production and to improve quality. Messrs. Alves and Natividade informed the Working Party of their country's achievements in the course of the last few years

with regard to technical assistance to growers and the development of reforestation projects by private individuals. It is hoped that the provisions of the Law No. 2069 recently passed, will substantially increase cork-oak reforestation.

Finally, the Working Group noted with satisfaction that, as proposed by Mr. Metro at Lisbon, the work by Mr. Natividade on cork-oak cultivation was being translated into French. It wished to thank FAO for taking all the necessary steps to this end, the translators who had so generously given of their services, and the Ecole National des Eaux et Forêts at Nancy which had offered to publish it.

CONCLUSION

After discussing the various questions mentioned above, the Permanent Working Party on Cork-Oak summarized its proposals in the following resolution:

CONSIDERING that the present economic situation is extremely favorable to a policy aiming at the improvement of cork-oak cultivation and that to solve the problems raised by the artificial regeneration of cork-oak in many degraded forest regions, the countries concerned should undertake as soon as possible the study of the best regeneration methods to be used in those areas ecologically suitable to such a species;

CONSIDERING, further, that a great part of the future cork-oak area will consist, at least in the Iberian Peninsula, either of natural grazing grounds with at present very little or no tree growth, or of very rough land where soil conservation and fixation are of paramount importance;

SUGGESTS that all cork-producing countries follow closely the study of those problems related to land use in the Mediterranean basin being undertaken by the Sub-Commission;

RECOMMENDS that these countries take an active part in all research projects, experiments, and trials, aiming at the solution of national problems related particularly to the development of cork-oak cultivation;

PROPOSES to meet again early in 1955 (i) to consider the various inventories already submitted or which will have been sent in by then, and (ii) to discuss thoroughly the details of the various questions listed above in relation to their economic implications;

REQUESTS the Secretariat of the Sub-Commission to fix the date and place of the next meeting, after consultation with the countries concerned.