Report of The Study Tour In Europe

Shioya, Tsutomu
Kyushu University

塩谷，勉
九州大学農学部

https://doi.org/10.15017/15861

出版情報：演習林集報. 17, pp.85-94, 1962-12-05. 九州大学農学部附属演習林
バージョン：published
権利関係：
In the latter half of 1961, I had an opportunity of visiting ten European countries and observing many valuable subjects. And I was able to go even to farther places, using sleepers and local planes in each country, very often as the first Japanese forestry visitor. Moreover, after a ninety day tour in Europe, I was able to touch briefly four developing countries of Africa and Asia on my way home. I would like to express my profound gratitude for the kindness shown by my hosts in these countries.

The main objects of this tour were as follows:

1) To observe slope utilization forms and policy, especially relations between pastures and forests.

2) To observe many exotic forests and forestry activities and to visit forestry universities and other institutions.

3) To secure initial background as to such problems in the European civilized and rather well developed countries.

I received much useful information and literature which will certainly be able to bring much benefit to Japan’s land policy formation and forestry improvement.

I am writing some detailed reports and papers referring to these materials. But I believe that such a report as mentioned below should also be of value for those who will travel to Europe with purposes similar to mine in the near future.

Itinerary finally carried out:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Place</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 29, Tues.</td>
<td>21.30</td>
<td>Lv. Tokyo</td>
<td>Plane</td>
</tr>
<tr>
<td>Sept. 10, Sun.</td>
<td>08.30</td>
<td>Lv. Zurich</td>
<td>Plane</td>
</tr>
<tr>
<td></td>
<td>10.05</td>
<td>Ar. Vienna</td>
<td>16 Nights in Austria</td>
</tr>
<tr>
<td>Sept. 26, Tues.</td>
<td>11.15</td>
<td>Lv. Salzburg</td>
<td>Train</td>
</tr>
<tr>
<td></td>
<td>12.55</td>
<td>Ar. Munich</td>
<td>12 Nights in Germany</td>
</tr>
<tr>
<td>Oct. 6, Fri.</td>
<td>12.00</td>
<td>Lv. Berlin</td>
<td></td>
</tr>
<tr>
<td>Oct. 14, Sat.</td>
<td>11.30</td>
<td>Ar. Stockholm</td>
<td></td>
</tr>
<tr>
<td>Oct. 18, Wed.</td>
<td>11.25</td>
<td>Lv. London</td>
<td></td>
</tr>
<tr>
<td>Oct. 21, Sat.</td>
<td>10.25</td>
<td>Lv. London</td>
<td></td>
</tr>
<tr>
<td>Oct. 29, Sun.</td>
<td>11.15</td>
<td>Ar. Paris</td>
<td></td>
</tr>
<tr>
<td>Nov. 7, Tues.</td>
<td>18.31</td>
<td>Lv. Bordeaux</td>
<td></td>
</tr>
<tr>
<td>Nov. 8, Wed.</td>
<td>09.30</td>
<td>Ar. Madrid</td>
<td></td>
</tr>
<tr>
<td>Nov. 14, Tues.</td>
<td>08.30</td>
<td>Lv. Madrid</td>
<td></td>
</tr>
<tr>
<td>Nov. 25, Sat.</td>
<td>15.45</td>
<td>Ar. Rome</td>
<td></td>
</tr>
<tr>
<td>Nov. 26, Sun.</td>
<td>19.15</td>
<td>Lv. Cairo</td>
<td></td>
</tr>
<tr>
<td>Nov. 27, Mon.</td>
<td>05.50</td>
<td>Ar. New Delhi</td>
<td></td>
</tr>
<tr>
<td>Dec. 2, Sat.</td>
<td>03.30</td>
<td>Lv. New Delhi</td>
<td></td>
</tr>
<tr>
<td>Dec. 3, Sun.</td>
<td>12.00</td>
<td>Lv. Bangkok</td>
<td></td>
</tr>
<tr>
<td>Dec. 5, Tues.</td>
<td>16.00</td>
<td>Lv. Hongkong</td>
<td></td>
</tr>
</tbody>
</table>

Remarks:
- Plane
- Train
- 6 Nights in Sweden
- 4 Nights in Norway
- 3 Nights in Denmark
- 8 Nights in Britain
- 9 Nights in France
- 6 Nights in Spain
- 11 Nights in Italy
- 1 Night in Egypt
- 5 Nights in India
- 1 Night in Thailand
- 2 Nights in Hongkong
Note: 1. Places and institutions which I visited; main persons with whom I conferred; some descriptions of the subjects observed.
2. Brief informations and impressions.

I. SWITZERLAND

(2) Forest and pasture trip in the neighborhood of Berne, guided by Mr. Ris, head of the Bernese Corporation, and Mr. G. v. Fellenberg.
(3) Selective forests in the Emmental or near Thoune, with Mr. Lanz.
(4) Bernese Oberland, Interlaken, Wengernalp (Jungfraujoch): land use in high mountains.
(5) Mr. Richard, officer of the cantonal forest service, took me to Neuchâtel to visit selective forests in the Jura and discuss problems of grazing and forestry in this region.
(6) Participating in an excursion of the Swiss Forestry Society to Tösstock afforestation and problems of marginal-land use.
(7) Utilisation of steep slope as forest and pasture in Lenzerheide and Tiefenkastel guided by Mr. J. Bieler, forest officer.
(8) Forest and grazing land of Savognin.
(9) Davos-Dorf, Weissfluhjoch, Federal Snow and Avalanche Research Institute — Director Dr. de Quervain, Mr. H. Frutiger.
(10) Federal Polytechnical Academy in Zürich.

II. AUSTRIA

1. (1) Bundesministerium für Land- und Forstwirtschaft, Sektion V (Forstwirtschaft) —
Dr. R. Ender.
(2) Hochschule für Bodenkultur (College of Agriculture), Wien, Institut für Pfl-
anzenbau und Pflanenzuchtung — Prof. Dr. L. M. Kopetz.

(3) Attendance at the 13th Congress of IUFRO (International Union of Forest Research Organisations) at the College of Agriculture in Vienna — for 1 week. Mostly, meeting of Section 31 (Forest Economics) and Section 11 (General Forest Influences).

(4) Special forestry and pasture problems in the Pannonian Lowlands, East of the Lake of Neusiedl in Burgenland.
Provincial forest nursery at Weiden.
Visit to a biological-drainage project in the community of Mönchhof.
Visit to windbreaks planted to protect valuable farmland against soil erosion.

(5) Questions pertaining to silvicultural practices, yield and forest management in the “Vienna Woods”. Forest administration of the Austrian Federal Forest.

(6) Farm forest problems in Styria. Visit to a mountain farm Waldbach and its forest and pasture: Questions pertaining to forest management, forest-road construction, regulation of forest and range management, conversion of shrub-land into economic forests with the assistance of mechanical equipment, etc.

(7) Reforestation carried out by the section of Torrent and Avalanche Control, Villach Division, on the mountain “Gerlitzen” (Carinthia) near timber-line, at the upper watershed of a torrent.

(8) Grossglockner, the highest mountain in Austria.

(9) Biological methods of slope stabilization, afforestation and reforestation techniques on bare land-slips in high mountains, carried out in the “Gallina” (Vorarlberg) by the Forest Engineering Department of Torrent and Avalanche Control.

(10) Forest and pasture management of farm forest areas in the communities of Breitenbach and Unterangerberg, Tyrol. This observation was guided by Hofrat Dipl.-Ing. N. Mair.
All these tours were under the guidance of state forest officers and district forest officers.

2. At the 13th Congress of IUFRO I received many useful informations about forestry and land policy in many other countries from foreign participants. But it is impossible to summarize them properly here.

Austria is a mountainous country like Japan, and for us Japanese its farm management situations are more familiar than those of other European countries. In Austria, an extraordinary high percentage of forest area belongs to farm forest (73.1 %), with small private forests amounting to 52.1 %. In Tyrol the average size of farm forests is between 4 and 8 hectares and, therefore, the main difficulties of intensifying farm-forest economy, stem from the close economic correlation between farms and forests. But the scarcity of forests is covered by having the common right of getting lumbers and litters from community forests.

Pasture does not show as improved an aspect as that of Switzerland. As to slope land agriculture, introduction of small sized machinery has unexpectedly not yet been advanced, though it is better than our present condition. “Waldweide” has been vanishing in this country too.

I was given an opportunity to observe the difficulties of reforestation at high altitudes. To restore a so-called “Protection Forest” which got the axe in the preceding century, requires never-ceasing work.
III. GERMANY

1. (1) Ministerialforstabteilung des Bayerischen Staatsministeriums für Ernährung, Landwirtschaft und Forsten in München — Minister (name missed), Forstmeister Schindlewein, Chief of the Silviculture and Management Division, Mr. Fram.

(2) Forest office at Teisendorf, Oberbayern — Oberforstmeister Dr. H. Schmidt. Big nursery at Laufen — Mr. B. Laber.

(3) State forest at Reit im Winkl — Oberförster Hartmann, Revierförster A. Schullan. For study of the problems of the “Waldweide” (grazing forest) and the “Trennung von Wald und Weide”.

(4) Forstwirtschaftlichen Abteilung der Staatswirtschaftlichen Fakultät der Universität München — Dr. Plochmann, Assistant H. Gebhardt for Prof. Dr. J. Speer (Institut für Forstpolitik und forstliche Betriebswirtschaftslehre).

(5) Forest management and slope utilization in “Schwarzwald” (Südbaden). State forest office at Todtnau — Oberforstmeister H. Berker, Forstmeister W. Drescher and Dr. Graf von Wallwitz from Forstdirektion Südbaden.

(6) Forstlichen Abteilung der Universität Freiburg — Prof. Dr. K. Mantel.

(7) Slope land use as vineyards along the river Rhine. The most intensive use form of slope.

(8) Abteilung Forst-und Holzwirtschaft des Bundesministerium für Ernährung, Landwirtschaft und Forsten in Bonn — Oberforstmeister G. Schüler, Mr. Kloser for Ministerialdirektor W. Mann.

(9) Forstlichen Fakultät der Universität Göttingen in Hann. Münden — Prof. Dr. G. Speidel (forest economics) and other professors. Observation drive in the “Exercise Forest” of the University under the guidance of Prof. Dr. A. Bonnemann (applied silvicultire).

(10) Observing rural conditions of East Germany from the train, from Hannover to Berlin.

(11) Vertretung Berlin des Bundesministeriums für Ernährung, Landwirtschaft und Forsten — Oberforstrat M. Grasselt. Social benefits from Berliner Wald (big forest in West Berlin), Serious situations at the borderline between East and West Berlin — Dr. F. Riecke, Ministerialrat G. Martens.

(12) Bundesforschungsanstalt für Forst-und Holzwirtschaft, Reinbeck near Hamburg — Dr. K. Wiebecke. Institut für forstliche Arbeitswissenschaft — Dr. G. Kaminsky.

2. In Germany I saw very beautiful rural scenery with neat and proper distribution of agricultural lands and forests. Land management seems to be under exact arrangement. In the South there usually is no rotation between grass-tending and farming.

Separation of grazing from forestry has greatly proceeded and good results have been achieved. It is clear that the best way of remedying many defects caused by mixed use, making fullest possible use of the land and maintaining maximum possible output, is to fence off the woodlands from the pastures by hedges, walls, wirefences and so on. Young stands surrounded by fences are growing vigorously. On the other hand, in view of the very poor yield of the grazing land, farmers are also playing an active part by providing labor and intensifying the exploitation of their pasture.

The resultant advantages, which benefit the whole community, fully justify the
granting subsidies for these operations by the state authorities. But even now the complete cancellation of grazing rights in the state forests is difficult. Some methods like giving money or land to farmers in exchange for such rights have been used by the authorities. I appreciate the extraordinary effort shown by them for a long time.

It is instructive that about 75% of the forest area of Western Germany is managed according to working plans, i.e. the State- and corporation forest, moreover those private forests which are suitable for an independent and ordinary management. The rest of the forest area consists of smaller holdings which are mostly managed intermittently. Usually 120–140 years’ long term rotation is adopted and managed by the systems of strip cutting, group cutting, shelterwood and sometimes selective cutting. Therefore I could not find large areas of cut over and bare land. Such systems accompanied by natural regeneration must be adapted in the northern parts of Japan such as: Hokkaido and Tohoku districts.

IV. SWEDEN

1. (1) The National Board of Private Forestry in Stockholm — Mr. B. Lindfelt for Director General F. Johansson.
(2) The Royal College of Forestry — Prof. Th. Streyffert (forest economics), Prof. B. Eklund (forest management).
(3) The Forest Research Institute — Mr. Å. Wiksten.
(4) The Swedish Wood Research Institute — Division Chief B. Thunell, Mr. B. Norén.
(5) The National Federation of Swedish Forest Owners’ Associations — Assistant Director. Mr. Nils Holst.
(6) The Swedish Board of Crown Lands and Forests — Mr. B. Kronvall, Mr. O. Lindbäck.
(7) The National Board of Agriculture — Mr. C. E. Norrbom.
(8) Observation tour to the company forests of Mo and Domšjö Co. at Örnsköldsvik — Mr. E. Edlund.
(9) The County Forest Conservation Board at Sollefteå. The Forestry School at Skedom — Mr. B. Hedman.

2. It is with justification that Sweden is often referred to as a country of forests. The forest resources provide a major contribution to the national income. One half of the annual felling (about 50 million cubic meters) supplies the raw material for export products such as sawn timber, wood pulp, paper, wallboard etc. Increment of forest trees is not necessarily so much as in Japan, but tree species in Sweden are almost all useful ones. They are made up of about 44% spruce, 40% pine, 12% birch and 4% other species, therefore forests are not complex, and the silvicultural method is not so complicated.

In this country forest owners’ associations, established for promoting the rational management of farm forests which account for 50% of the total forest area, are performing the most characteristic work. I believe their activities are surely, praiseworthy and involve many useful suggestions for me. But I cannot forget that the average area of farm forest ownership is about 45 ha while in Japan this figure is only 2.2 ha.

Company forests (25% of the total forest area) are also interesting. Over one century ago the large sawmill companies bought forests, especially in the northern parts of the country. Therefore the origin of this new category of forest ownership
is quite different from that of the United States.

In Sweden also the tendency to shift land use is worth noticing, that is, agricultural lands and arable lands are fairly rapidly shifting to forests. Since 1951 several thousands ha of grassland have changed to forests yearly. During this decade farms decreased by 24 thousand in number. The Land Reform Program is putting forward the exchange, dividing and collecting of agricultural lands, including the concentration of scattered forests owned by companies.

V. NORWAY

1. (1) Landbruksdepartementet, Oslo — Director of Forestry Dr. A. Langsæter, First Secretary E. Furuseth, and Mr. Foralt Austin.
(2) Forest Research Station of West Norway at Stend near Bergen — Prof. Dr. Robak.
(3) Norwegian Forest Research Institute at Vollebekk near Oslo — Dr. P. Braathe and Assistant Prof. Bjør, the researcher of land use, specially grazing problem.
(4) Norwegian Agricultural College at Vollebekk, Division of Forestry — Assistant Prof. R. Saether for Prof. Jørgensen.
(5) Mr. A. Johannessen from the Royal Agricultural Society of Norway (International Exchange of Agricultural Youth).

2. Nearly one half of Norway (15.5 mil. ha) consists of mountain regions, i. e. areas above the tree line. From the sky I observed such regions where there were only rocky land, mountain lakes, bogs and rough grasses. Even the sheep and goats don't go up to these high places, for there is no need to do so. Lately summer pastures (grazinglands) have been decreasing as the result of improving those pastures near farmers' houses. Arable lands are gradually being converted to forests in their country too. Such tendency was caused by the changes of economic and social conditions.

From the view point of productive land use by afforestation, the Government attaches importance to the West-South region. To observe forestry activities in this region, I visited Bergen as the first forestry visitor from Japan. I noted that very much attention was paid to establishing coniferous forests by the introduction of foreign species.

Sitka spruce originated on the West Coast of the United States is showing better growth than Norway spruce. These stands were cultured carefully by ditching and giving fertilizers. Douglas fir and western hemlock of the U. S. also seems to fit the climatic and soil conditions of coast regions of West-South Norway.

VI. DENMARK

1. (1) The Directorate of State Forests in Copenhagen — Director H. Frølund.
(2) Dune plantations near Vejers in Jutland — Klitdirektør (Dune-director) P. Thaarup.
(3) Heath plantations, Ulfborg State Forest District in Jutland — Director V. Johansen.

2. During 3 days stay in Denmark, I spent almost all the time in Jutland observing the afforestation work carried on the once deserted lands. The total forest area at present corresponds to about 10% of the total area of Denmark. The area has been steadily increasing since the middle of the 19th century and has redoubled since 1880. The large extent of afforested areas are found in Jutland.

At first I saw the dune plantations. I suppose that Denmark has probably
suffered more in proportion from drifting sands than any other country in Europe. Sand dune fixation and its productive utilization has been performed by planting first mountain pine and next Sitka spruce or white fir.

I cannot admire the achievements of the Danish Heath Society (founded in 1866 by E. M. Dalgas) too much. The Society reclaimed more than 800 thousands ha of uncultivated areas in Jutland, most of which were covered with heather. Tree planting was one of the most important works. All species of coniferous tree adopted to the heath plantations were exotic, because in the past there was no conifer in Jutland. Great efforts have been and are being made to create now plantations and to support successful agriculture. Japanese larch was also a suitable shelter tree. In spite of bad weather, I had an impressive trip going around the western parts of Jutland guided by very hospitable Danish foresters.

VII. UNITED KINGDOM

1. (1) Forestry Commission Headquarters in London — Mr. H. L. Edlin.
   (2) Alice Holt Forest Research Station, Management Section — Mr. A. Grayson (Forest Economist).
   (3) Imperial Forestry Institute, Oxford — Director Prof. M. V. Laurie, Prof. J. J. MacGregor (Forest Economist) and other professors.
   (4) Commonwealth Forestry Bureau, Oxford — Director F. Robertson.
   (5) Department of Estate Management, Cambridge University — Mr. J. Switzer for Head Dr. D. R. Denman.
   (7) West Scotland Conservancy — Conservator J. E. James.
   The Queen Elizabeth Forest Park, a mountainous region combining forestry, grazing, water catchment and recreation, guided by District Officer A. S. Mac-Nair.
   Visit to Benmore, forestry and grazing, including Forester Training School, Research Branch Forest Garden and Nursery, guided by Mr. T. Robbie and Mr. A. R. Mair.
   (8) Observation of the Scottish Southern Uplands and the English Pennines from train.

2. At three institutes, that is, Alice Holt Research Station and two Universities of Oxford and Cambridge, I gained more useful informations than I expected, and such precious literatures as “Forestry, Agriculture and Marginal Land” by Professor Sir S. Zuckerman and so on. It was too bad that I had not more time at those institutes.

   As to the practical field, I was given an opportunity to see land use forms in Scotland. Mountain sides covered with a kind of fern (pteris) of autumn color in red and blue lakes surrounded by yellow broad-leaved trees were wonderful scenery. Rough and extensive grazing lands for sheep were characteristic and more than 4 acres of such grass land were provided for each sheep. After World War I conifer planting has gradually been proceeding on such lands from the foot halfway up the hills. On level lands also plantations were created, sometimes after ditching. Governmental grant was effective for promoting such difficult afforestation work.

   It should be emphasized that forestry’s claim on the land does not conflict with the requirements of agriculture. There is room in this country for both industries. No land is acquired for planting unless the proposal is approved by the secretary of
State for Scotland after examination from the farming point of view by the Department of Agriculture.

VIII. FRANCE

1. (1) M. F. M. du Vignaux, Directeur Général des Eaux et Forêts in Paris, only arrangements for my trip and no touch with his office.
(2) Contact with M. H. Harada (Laboratoire du Phytotron, Gif-sur-Yvette, S. et O. near Paris).
(3) Ecole Nationale des Eaux et Forêts at Nancy — Director Prof. R. Viney and other professors.
(5) Centre de Recherches et Experimentation Forestiere in Bordeaux — Ingénieur en Chef, M. J. Guinaudeau.
(6) Sand dune fixation and maritime pine Plantations at la Teste and Lege, both near from Bordeaux, guided by M. Guinaudeau, Ingénieur R. Marès, and Conservateur M. de Traversay.
(7) Observations of almost the same subjects as (6) above, cork oak stands and arboretum in the neighborhood of Soustons, after going through Landes vertically from Bordeaux, guided by Ingénieur G. Illy, M. J Caignard.

2. From the forestry point of view, France is a country of hardwood forests, most of which consist of coppice with or without standards. I saw such typical and beautiful forests in autumn color at the school forest of Nancy Forestry School. But the government is going ahead with the conversion to conifer forests more eagerly than other countries in Europe.

It was my regret that I had not enough time to visit Grenoble and to observe the advancing afforestation on abandoned mountain pastures. But I observed the “Landes” which was once waste land usable only for sheep grazing. Now there are many cultivated areas and industries, though its population is less than 10 persons per 1 square km. There we can also find nearly 1 million ha of forests (mostly maritime pine plantations) having much wood and resin production.

These pine forests made by the great efforts of pioneers like Brémontier and Chambrelent since the middle of 18th century, are giving remarkable social benefits to rural communities. By confirming these facts together with observing an unique method of sand dune fixation, the visit to Landes de Gascogne became one of my most impressive trips.

IX. SPAIN

1. (1) Ministerio de Agricultura, Oficina del Montes — Assistant Director M. Prats for General Director S. Sanchez and Sr. Rada.
(2) Forest Research Institute in Madrid — Ingeniero de Montes J. Garcia.
(3) School of Forestry in Madrid — Professor J. Vilarrasa, J. Ramos and A. Bujarrabal.
(4) Visit to Canencia, about 1,400 m high above sea level and 60 miles north from Madrid, for observing pine plantations (Pinus silvestris and P. laricio) and grazing lands owned by state. Next visit to Montes del Pardo (Emperor’s Forest). The third to characteristic pine plantations (Pinus halepensis) on hill sides 25 km south from Madrid. Guided by Sr. F. Blein, Ingeniero Jefe de Montes.
(5) Visit to Valdenoches 62 km east from Madrid, to observe protection forests
(newly established pine plantations) for preventing stone falling and soil erosion. Guided by Ingeniero J. Sagasta.


(7) A large pine plantation (Pinus Pinaster, P. Pinea) extending nearly 5,000 ha, that is the forest “Cabeza aguda” 75 km west from Córdoba. Guided by Ingeniero C. Fernández.

2. Not a few areas of Spanish land still lie wasted. Many kinds of live-stock, sometimes including black ox for bull-fighting, are feeding on natural grasses on such desolate lands. It is a most common view of this country. Spain is considerably falling behind other western European countries in the improvement of pasture. Such grazing forests as quercus woods (Q. ilex) which provide foods for herds of pigs, are often found. Unproductive land use seems to be closely connected with the low living standard of this nation.

In spite of disadvantages of geological and climatic conditions, recent earnestness in afforestation shown by the government is praiseworthy. As planting tree species, such several pines as above-mentioned and eucaliptus are usual. I observed them with much interest and knew that plantations were made with uncommonly cautious technique. Especially I inspected splendid young pine stands near Córdoba which have already received many foreign visitors, and of which the Spanish Forest Service was proud.

Looking down from the lookout at the highest point of this forest, the spacious and wavelike green mountain range was never to be forgotten. Maritime pine (P. pinaster) was growing strongly even on acid soils.

X. ITALY

1. (1) FAO’s Headquarters in Rome, Forestry and Forest Products Division — Chief of Forest Policy Section, Mr. T. François.

(2) Ministero Agricoltura e Foreste, Direzione Generale Economia Montana e Foresta — Capo Sessone Dott. F. Alfonso for Directeur Général A. M. Camaiti.

(3) Visit to Okura Trading Co. Ltd., Milan Office for getting general informations about the Italian economy and agriculture — Manager M. Inumaru.

(4) University of Florence, Faculty of Agriculture and Forestry — Prof. A. de Philippis, Prof. V. Bellucci and other professors.

(5) Observation tour to the Apennines from Florence to get general idea about land use form in this region, guided by Dott. P. Piusssi (assistant of Prof. Philippis).


(7) Amministratore Foresta Demaniale Sila Piccola, Cantanzaro — Dott. T. Bianchi.

(8) All round trip in Calabria, extremely southern part of Italian Peninsula, guided by Dott. N. Isidoro, Dott. Q. Ricardo and Rag. P. Vincenzo who are all belonging to Ispettorato Regionale delle Foreste, Reggio Calabria.

2. The most useful and impressive observation in Italy was held in Calabria. There I saw agricultural use of slope land which is similar to Japanese practices. Italy has some overpopulation (probably the only country having it in Western Europe) and plenty of agricultural population. The active population devoted to agriculture is scarcely below 40% of the national active population, but the income from agriculture is hardly higher than 20% of the national income. National Land Recla-
mation work (Bonifica Integral) has been proceeding vigorously in this mountainous region also.

Seeing the poor and fragile construction of the mountain lands, I felt it was necessary to reforest, to improve pastures and grazing lands, to rectify mountain water courses, to consolidate declivities, to build dams and to do everything else necessary for the stability of the soil and for the good conduction of water. Vineyards, orange and mandarine fields and olive plantations developing on the lower reaches of wild rivers, must be protected from floods or landslips.

Fortunately all these works have been in operation successfully. Especially a unique method of systematization against land slip, named “gradoni” was effective and ornamented hillsides with horizontally striped pattern.

There are not a few problems in land-use in the Mediterranean region from the forestry and pasture management points of view.

XI. OTHER COUNTRIES

1. (1) A glance at a part of the Libyan Desert in Egypt.
   (2) Visit to Forest Research Institute and Forest College, Dehra Dun in India —
       Prof. Dr. B. K. Bakshi, Head M. A. W. Khan (Division of Forestry).
       Dean D. H. Kulkarni and other professors.
   (3) FAO Regional Office for Asia and the Far East, Bangkok in Thailand — Forestry Officer, Mr. T. Nasu.
   (4) Shui Fung Dairy, Kowloon, Hongkong — Manager, Mr. H. F. Tsang.

2. Observation of land use forms and policy in South-asiatc countries was also interesting and useful, comparing with those of the civilized nations in Western Europe.